Pioneer *sound.vision.soul*

RCS-LX60D

SX-LX60D | Audio Multi-channel Receiver Subwoofer
SSP-LX60D | Speaker System
DVR-LX60D | HDD/DVD Recorder

Discover the benefits of registering your product online at
http://www.pioneer.co.uk (or **http://www.pioneer.eu**)

Operating Instructions

Thank you for buying this Pioneer product.
Please read through these operating instructions so that you will know how to operate your model properly. After you have finished reading the instructions, put them in a safe place for future reference.

IMPORTANT



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

D3-4-2-1-1_En-A

WARNING

This equipment is not waterproof. To prevent a fire or shock hazard, do not place any container filled with liquid near this equipment (such as a vase or flower pot) or expose it to dripping, splashing, rain or moisture. D3-4-2-1-3_A_En

This product complies with the Low Voltage Directive (73/23/EEC, amended by 93/68/EEC), EMC Directives (89/336/EEC, amended by 92/31/EEC and 93/68/EEC). D3-4-2-1-9a_En

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement. S002_En

WARNING

Before plugging in for the first time, read the following section carefully.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit will be used meets the required voltage (e.g., 230V or 120V) written on the rear panel. D3-4-2-1-4_A_En

Operating Environment

Operating environment temperature and humidity: +5 °C to +35 °C (+41 °F to +95 °F); less than 85 %RH (cooling vents not blocked)
Do not install this unit in a poorly ventilated area, or in locations exposed to high humidity or direct sunlight (or strong artificial light) D3-4-2-1-7c_A_En

This product is for general household purposes. Any failure due to use for other than household purposes (such as long-term use for business purposes in a restaurant or use in a car or ship) and which requires repair will be charged for even during the warranty period. K041_En

CAUTION

This product is a class 1 laser product, but this product contains a laser diode higher than Class 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.
The following caution label appears on your unit.
Location: inside of the HDD/DVD Recorder

CLASS 1
LASER PRODUCT

VRW2262 - A

CAUTION	CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO THE BEAM.
ATTENTION	RADIATIONS LASER VISIBLES ET INVISIBLES DE CLASSE 3B QUAND OUVERT. ÉVITEZ TOUT EXPOSITION AU FAISCEAU.
ADVARSEL	KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING	KLASS 3B SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. UNDVIK ATT UTSÄTTA DIG FÖR STRÅLEN.
VORSICHT	BEI GEÖFFNETER ABDECKUNG IST SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG DER KLASSE 3B IM GERÄTEINNEREN VORHANDEN. NICHT DEM LASERSTRAHL AUSSETZEN!
PRECAUCIÓN	CUANDO SE ABRE HAY RADIACIÓN LÁSER DE CLASE 3B VISIBLE E INVISIBLE. EVITE LA EXPOSICIÓN A LOS RAYOS LÁSER.
VARO!	AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LUOKAN 3B LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
注意	打開時會有CLASS 3B可見和不可見鐳射輻射，請勿受鐳射束輻射。
注意	ここを開くと CLASS 3B の可視レーザ光及び不可視レーザ光が出ます。ビームを直接見たり、触れたりしないこと。

D3-4-2-1-8_B_En

If the AC plug of this unit does not match the AC outlet you want to use, the plug must be removed and appropriate one fitted. Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel. If connected to an AC outlet, the cut-off plug can cause severe electrical shock. Make sure it is properly disposed of after removal.
The equipment should be disconnected by removing the mains plug from the wall socket when left unused for a long period of time (for example, when on vacation). D3-4-2-2-1a_A_En

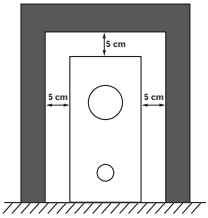
CAUTION
The ⏻ STANDBY/ON switch on this unit will not completely shut off all power from the AC outlet. Since the power cord serves as the main disconnect device for the unit, you will need to unplug it from the AC outlet to shut down all power. Therefore, make sure the unit has been installed so that the power cord can be easily unplugged from the AC outlet in case of an accident. To avoid fire hazard, the power cord should also be unplugged from the AC outlet when left unused for a long period of time (for example, when on vacation).

WARNING
To prevent a fire hazard, do not place any naked flame sources (such as a lighted candle) on the equipment. D3-4-2-1-7a_A_En

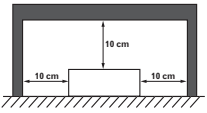
VENTILATION CAUTION (Receiver subwoofer)
When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 5 cm at top, 5 cm at rear, and 5 cm at each side).

VENTILATION CAUTION (HDD/DVD Recorder)
When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 10 cm at top, 10 cm at rear, and 10 cm at each side).

WARNING
Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product, and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered with items (such as newspapers, table-cloths, curtains) or by operating the equipment on thick carpet or a bed. D3-4-2-1-7b_A_En



Receiver subwoofer



HDD/DVD Recorder

If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private households in the member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For countries not mentioned above, please contact your local authorities for the correct method of disposal.

By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health. K058_En

Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.

IMPORTANT: THE MOULDED PLUG
This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 5 amp fuse is fitted in this plug. Should the fuse need to be replaced, please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be obtained from your local dealer.

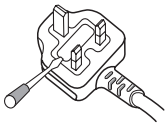
If the fitted moulded plug is unsuitable for your socket outlet, then the fuse shall be removed and the plug cut off and disposed of safely. There is a danger of severe electrical shock if the cut off plug is inserted into any 13 amp socket.

If a new plug is to be fitted, please observe the wiring code as shown below. If in any doubt, please consult a qualified electrician.

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:
Blue : Neutral Brown : Live
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows ;

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter **N** or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter **L** or coloured RED.

How to replace the fuse: Open the fuse compartment with a screwdriver and replace the fuse.



D3-4-2-1-2-2_B_En

Contents

❖ Section One

What's in the box 5

01 Speaker Setup Guide

Safety precautions when setting up 6
Home theater sound setup 6
Front surround setup (recommended) 6
Standard surround setup 8
Wall mounting the speakers 9
Before mounting 9
Additional notes on speaker placement 9

02 Connecting up

Basic connections 10
Using this system for TV audio 14

03 Controls and displays

Display unit 15
Display 15
HDD/DVD Recorder 16
Display 17
Common Interface 17
Inserting a CA module 17
Remote control 18
Using the remote control 20
Putting the batteries in the remote control 21

04 Before you start

Switching on 22
Setting up 22
Basic operation 23
Watching a DVD 23
Listening to a CD 23
Watching a title recorded on the HDD 23
Listening to the radio 23

05 Getting started

System demo setting 24
Using the Auto MCACC setup for optimal surround sound 24

06 Listening to your system

Auto listening mode 26
Listening in surround sound 26
Dolby Pro Logic II Music settings 26
Using Front Stage Surround Advance 27
Using Advanced Surround 27
Listening in stereo 27
Using the Sound Retriever 27
Listening with Acoustic Calibration EQ 28
Enhancing dialogue 28
Using Quiet and Midnight listening modes 28
Adjusting the bass and treble 28
Boosting the bass level 28

07 Listening to the radio

Listening to the radio 29
Improving poor FM reception 29
Improving poor AM sound 29
Changing the noise cut mode 29
Memorizing stations 30
Listening to station presets 30
Using RDS 30
Displaying RDS information 30
Searching for RDS programs 30

08 Surround sound settings

Using the Setup menu 31
Channel level setting 31
Speaker distance setting 31
Dynamic Range Control 32
Dual mono setting 32
Adjusting the channel levels using the test tone 32

09 Other connections

Connecting auxiliary components 33
Connecting an analog audio component 33
Listening to an external audio source 33
Connecting external antennas 34
Using this unit with a Pioneer plasma display 34
SR+ Setup for Pioneer plasma displays 35
Using the SR+ mode with a Pioneer plasma display 35

10 Additional information

Dimming the display 36
DTS CD setting 36
Setting the sleep timer 36
Resetting the system 36
Installation and maintenance 37
Hints on installation 37
Troubleshooting 37
General 37
Tuner 38
Error Messages 38
Glossary 39
Specifications 39

❖ Section Two

Operating instructions for HDD/DVD Recorder (DVR-LX60D) 40

What's in the box

Please confirm that the following items are all supplied.

Receiver subwoofer (SX-LX60D) box:

- Remote control (page 18)
- AA/R6 dry cell batteries (to confirm operation) x2 (page 21)
- Display unit (page 15)
- Power cord (page 12)
- AM loop antenna (page 10)
- FM wire antenna (page 10)
- Control cable (page 10)
- Display cable (page 10)
- Coaxial cable (page 10)
- Microphone (for Auto MCACC setup) (page 24)
- Non-skid pads (large) x4 (page 7)
- Spacers x2 (page 11)
- These operating instructions
- Warranty card

HDD/DVD recorder (DVR-LX60D) box:

- Remote control
- AA/R6P dry cell batteries x 2
- Audio/video cable (red/white/yellow) (page 14)
- G-LINK™ cable (page 51)
- RF antenna cable x 2 (page 14)
- Power cord (page 14)
- Operating instructions
- Warranty card

Speakers (SSP-LX60D) box:

- Speakers (front x2, surround x2, center x2) (page 12)
- Speaker cables x5 (page 12)
- Non-skid pads (small) x24 (page 7)
- Brackets x2 (page 7)
- Spiral wrap x2 (page 13)
- Screws x8 (page 7)

Chapter 1
Speaker Setup Guide

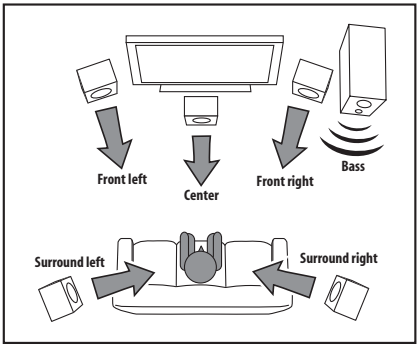
Safety precautions when setting up

When assembling the speakers, lay them down flat on their side to avoid accidents or injury. Make sure to use a stable surface when assembling, setting up, and placing the speakers.

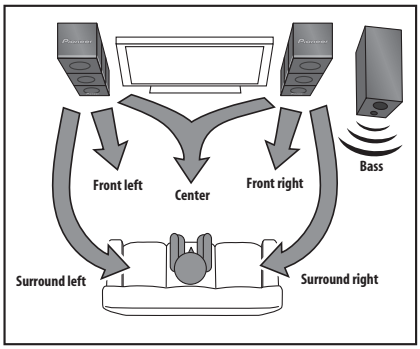
If the speakers are to be used in a stacked configuration, always use the provided brackets to secure them together (page 7, 8).

Home theater sound setup

Most 5.1 channel home theater systems are designed so that speakers are placed to surround the listener's position as shown in the illustration. Such designs, however, produce the undesirable effect of forcing the center speaker to be mounted above or below the television monitor, and require room for the surround speakers.

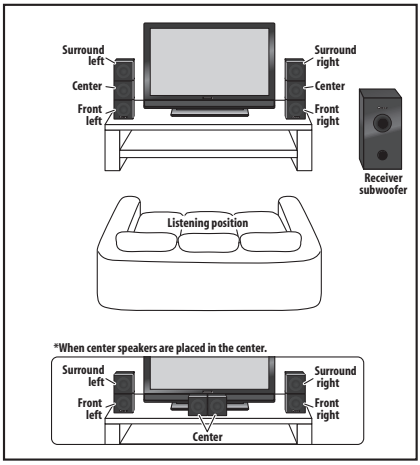


The present system, however, features Pioneer's proprietary New Front Surround technology and Dual Center Speakers, using only two speaker positions (to right and left of television as shown in the illustration) in order to provide full home theater sound while greatly simplifying the issue of speaker placement.



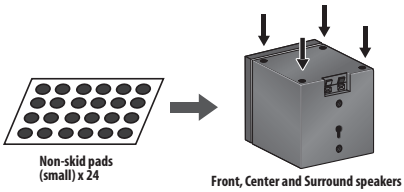
Front surround setup (recommended)

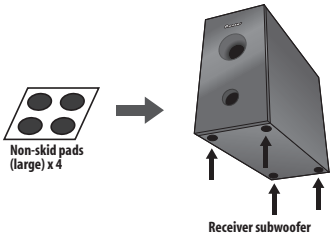
This recommended method places the surround speakers in front, to simplify the issue of speaker placement in the room. The center speakers can be placed in independently in the center if desired.



1 Attach the smaller non-skid pads to the base of each of the front, center and surround speakers. The four large non-skid pads are for the receiver subwoofer (as shown).

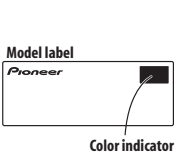
Use the adhesive side of the pads to attach them to the base (flat surface) of each speaker.





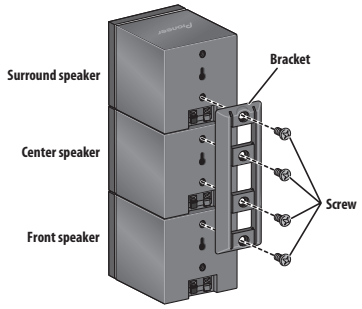
2 Stack the speakers and fix with the brackets.

Each speaker is provided with a color-coded indicator on the model label on the rear side to assist identification. Refer to the color indicators and install the speakers correctly.

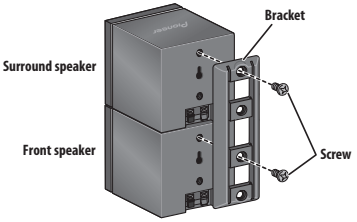


Left		Right
Blue	Surround speaker	Gray
Green	Center speaker	Green
White	Front speaker	Red

As shown in the illustration, stack the speakers from the bottom up in the order front speaker, center speaker, surround speaker. Align the bracket with the respective upper screw hole on the back of the front speaker, the two screw holes on the center speaker, and the bottom screw hole on the surround speaker, and fasten the screws securely.



When placing the center speakers independently, stack the front speaker on the bottom and the surround speaker on top, then align the 1st and 3rd screw holes from the top of the bracket with the upper screw holes on the back of the speakers, and fasten the two securely.



Caution

- Do not attempt to carry the speakers when they are connected with the bracket. Doing so may cause damage to the bracket or worsen damage to the bracket and speakers in the event they are dropped.

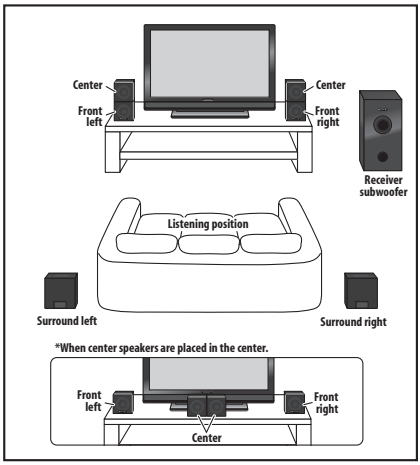
3 Connect the speaker system.

Refer to *Connecting up* to connect the speakers properly. After connecting everything, place the speakers as shown in the diagram above for optimal surround sound. After placing the speakers, run the Auto MCACC setup (page 24) to complete your surround sound setup.

Standard surround setup

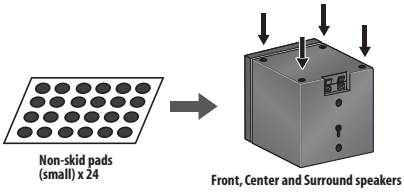
This is a standard multichannel surround sound speaker setup for optimal 5.1 channel home theater sound.

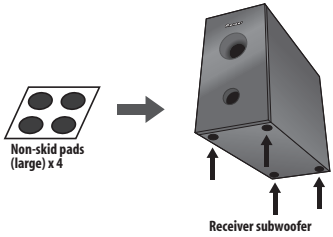
The center speakers can be installed independently in the center if desired.



1 Attach the smaller non-skid pads to the base of each of the front, center and surround speakers. The four large non-skid pads are for the receiver subwoofer (as shown).

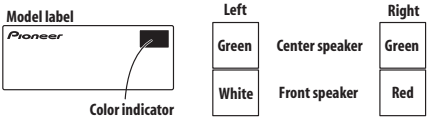
Use the adhesive side of the pads to attach them to the base (flat surface) of each speaker.



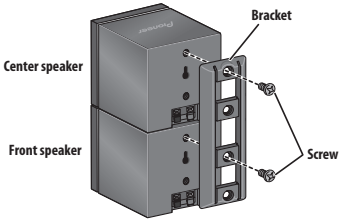


2 (When mounting center speakers to right and left) Stack the speakers and fix with the bracket.

Each speaker is provided with a color-coded indicator on the model label on the rear side to assist identification. Refer to the color indicators and install the speakers correctly.



As shown in the illustration, stack the speakers with the front speaker on the bottom and center speaker on top, then align the 1st and 3rd screw holes from the top of the bracket with the upper screw holes on the back of the speakers, and fasten the two securely.



Caution

- Do not attempt to carry the speakers when they are connected with the bracket. Doing so may cause damage to the bracket or worsen damage to the bracket and speakers in the event they are dropped.

3 Connect the speaker system.

Refer to *Connecting up* to connect the speakers properly. After connecting everything, place the speakers as shown in the diagram above for optimal surround sound. After placing the speakers, run the Auto MCACC setup (page 24) to complete your surround sound setup.

Wall mounting the speakers

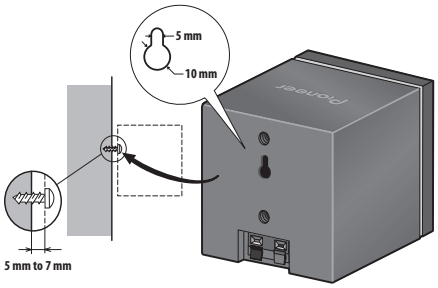
The front, center and surround speakers have a mounting hole which can be used to mount the speaker on the wall.

Before mounting

- Remember that the speaker system is heavy and that its weight could cause the screws to work loose, or the wall material to fail to support it, resulting in the speaker falling. Make sure that the wall you intend to mount the speakers on is strong enough to support them. Do not mount on plywood or soft surface walls.
- Mounting screws are not supplied. Use screws suitable for the wall material and support the weight of the speaker.

Caution

- If you are unsure of the qualities and strength of the wall, consult a professional for advice.
- Pioneer is not responsible for any accidents or damage that result from improper installation.



Additional notes on speaker placement

- Install the main front left and right speakers at an equal distance from the TV.
- When using the Front surround setup, separate the left and right speakers by about 1.5 m for optimum effect.
- When using the Standard surround setup, install the surround speakers slightly above ear level for optimum effect.

Precautions:

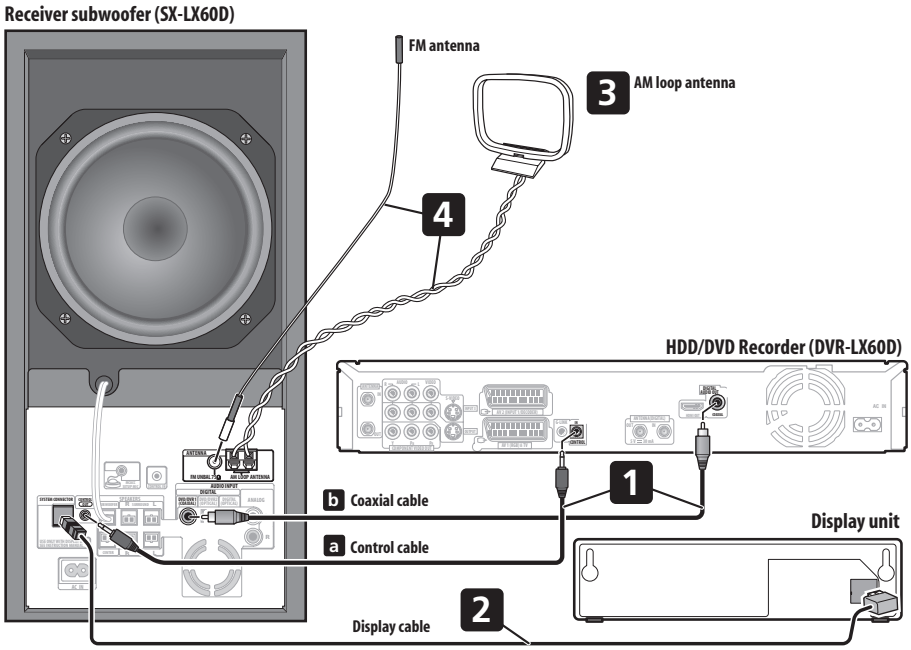
- When installing the center speaker on top of the TV, be sure to secure it with tape or some other suitable means. Otherwise, the speaker may fall from the TV due to external shocks such as earthquakes, endangering those nearby or damaging the speaker.
- The front (x2), center (x2) and surround (x2) speakers supplied with this system are magnetically shielded. However, depending on the installation location, color distortion may occur if the speaker is installed extremely close to the screen of a television set. If this happens, turn the power switch of the television set OFF, and turn it ON after 15 min to 30 min. If the problem persists, place the speaker system away from the television set.
- The receiver subwoofer is not magnetically shielded and so should not be placed near a TV or monitor. Magnetic storage media (such as floppy discs and tape or video cassettes) should also not be kept close to the receiver subwoofer.
- Do not attach the receiver subwoofer to the wall or ceiling. They may fall off and cause injury.
- For safety, make sure that there is no exposed bare speaker wire outside of the speaker terminals.
- Do not connect the supplied speakers with any other amplifier. This may result in malfunction or fire.
- Do not connect any speakers other than those supplied to this system.

Chapter 2
Connecting up

Basic connections

Important

- When connecting this system or changing connections, be sure to switch power off and disconnect the power cord from the wall socket.
 After completing all connections, connect the power cords to the wall socket.



Note

- When using the display unit in a wall-mounted location, take full precautions to prevent the unit from accidentally falling.
- Screws and other fixtures for use in wall mounting are not included.

WARNING

- Pioneer bears no responsibility for accidents resulting from faulty assembly or installation, insufficient mounting strength of walls, mounting fixtures (or other building fixtures), misuse or natural disasters.

1 Connect the HDD/DVD recorder to the receiver subwoofer.

a. Plug the control cable into the **CONTROL OUT** jack on the rear of the receiver subwoofer.

Plug the other end of the cable into the **CONTROL IN** jack on the rear of the HDD/DVD recorder.

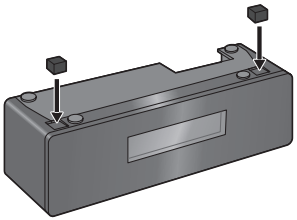
b. Plug the coaxial cable into the **DIGITAL AUDIO INPUT (DVD/DVR 1)** jack on the rear of the receiver subwoofer.

Plug the other end of the cable into the **DIGITAL AUDIO OUT (COAXIAL)** jack on the rear of the HDD/DVD recorder.

Note that unless the control cable is connected, you can't use the remote control with the HDD/DVD recorder.

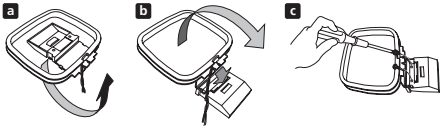
2 Fasten the spacers to the display unit and connect.

If the display unit is difficult to view, the spacers can be attached to allow changing of the viewing angle. Peel off the protective paper from the spacers and press the spacers onto the depressions on the bottom of the display unit.



Plug the L-shaped end of the display cable into the connector on the rear of the display unit, then plug the other end of the display cable into **SYSTEM CONNECTOR** jack on the receiver subwoofer.

3 Assemble the AM loop antenna.



a. Bend the stand in the direction indicated by the arrow.

b. Clip the loop onto the stand.

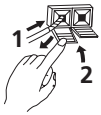
c. If you want to fix to a wall or other surface, perform step b after first securing the stand with screws.

It is recommended that you determine the reception strength before securing the stand with the screws.

4 Connect the AM and FM antennas[1].

a. Connect one wire of the AM loop antenna to each AM antenna terminal[2].

For each terminal, press down on the tab to open; insert the wire, then release to secure.



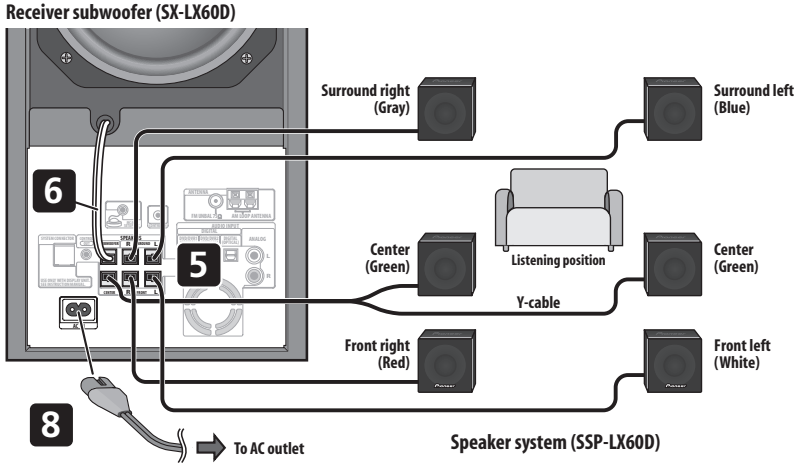
b. Push the FM antenna[3] plug onto the center pin of the FM antenna socket.

Note

1 • Keep antenna cables away from other cables, the display unit, receiver subwoofer and HDD/DVD recorder.
• If reception with the supplied antenna is poor, see *Improving poor FM reception* and *Improving poor AM sound* on page 29 or *Connecting external antennas* on page 34.
• Do not attach any antenna other than the provided loop antenna, or an external antenna as described on page 34.

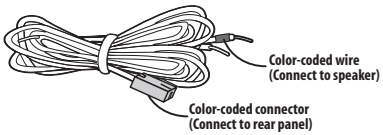
2 • Don't let it come into contact with metal objects and avoid placing near computers, television sets or other electrical appliances.
• If radio reception is poor, you may be able improve it by re-inserting each antenna wire into the opposite terminal.
• For best reception, do not untwist the AM loop antenna wires or wrap them around the loop antenna.

3 To ensure optimum reception, make sure the FM antenna is fully extended and not coiled or hanging at the rear of the unit.



5 Connect each speaker.

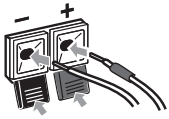
- The front and surround speaker cables have a color-coded connector at one end and two bare wires at the other end.



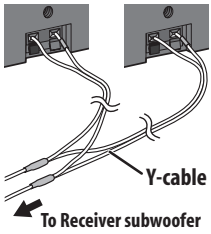
- Since there is only one terminal to connect the two center speakers, you will need to use the supplied Y-cable for the connection.
- Twist and pull off the protective shields on each wire.



- Connect the wires to the speaker. Each speaker in the illustration can be identified by means of the color-coded indicator provided on the rear-surface model label. Match the color-coded wire with the color indicator on the model label, then insert the color-coded wire into the red (**+**) side and the other wire into the black (**–**) side.

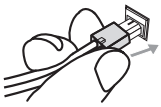


- When connecting the center speakers, connect the Y-cable dual end to the two center speakers in the same way.

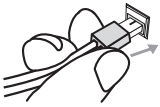


- Connect the other end to the color-coded speaker terminals on the rear of the receiver subwoofer. Make sure to insert completely.

 The small lug at the wire-end of the speaker plug should face up or down depending on whether it's being plugged into one of the upper or lower speaker terminals. Please make sure to connect correctly.



Upper terminal

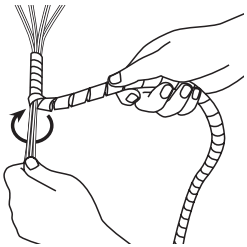


Lower terminal

- When connections are completed, adjust the cable placements. If the speakers have been fixed with the brackets, fix the cable to the groove in the brackets as shown.



- Fasten the cables together with the spiral wrap. Hold multiple cables together and place the wrap over the cables from the end.
 Wrap the spiral wrap with the cables in the center. The spiral wrap may be cut at a desired length.

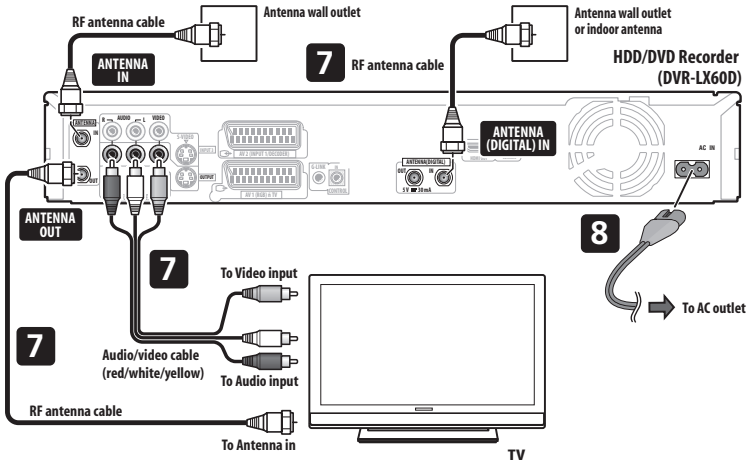


6 Connect the subwoofer cable.

- Just below the subwoofer speaker, to the left of center, you should see the subwoofer connecting cable. Plug this into the **SUBWOOFER SPEAKER** terminal.

Caution

- These speaker terminals carry **HAZARDOUS LIVE voltage**. To prevent the risk of electric shock when connecting or disconnecting the speaker cables, disconnect the power cord before touching any uninsulated parts.
- Do not connect any speakers other than those supplied to this system.
- Do not connect the supplied speakers to any amplifier other than the one supplied with this system. Connection to any other amplifier may result in malfunction or fire.
- The center speakers and front/surround speakers are designed with different impedance values. Be sure to identify and connect the speakers correctly since improper connections may result in degraded sound or operation.



7 Connect the HDD/DVD recorder to your TV.[1]

- Connect the **VIDEO OUTPUT** jack to a video input on your TV.

 Use the yellow jack of the supplied audio/video cable for the video connection.
- Connect the **AUDIO OUTPUT** jacks to the corresponding audio inputs on your TV.

 Use the red and white jacks of the supplied audio/video cable for the audio connection. Make sure you match the left and right outputs with their corresponding inputs for correct stereo sound.
- See *Connecting a TV antenna* on page 49 to connect the antenna.

8 Connect the power cord.[2]

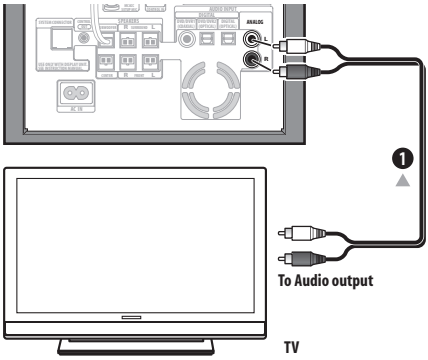
- Connect the power cord to AC inlet on the receiver subwoofer and HDD/DVD recorder. Connect the power cord to a wall socket.

Using this system for TV audio

If your TV has a stereo audio output you can connect it to this system and enjoy surround TV sound.

Important

- When connecting this system, be sure to switch power off and disconnect the power cord from the wall socket. Connect the power cord to the wall socket only after completing all other connections.



1 Connect the audio output jacks on your TV to the ANALOG AUDIO INPUT jacks on the receiver subwoofer.

Use the red/white stereo audio cable (not supplied) for this connection. Make sure you match the left and right outputs with their corresponding inputs for correct stereo sound.

- You can use the **ANALOG AUDIO INPUT** jacks for any analog source you want, such as a tape deck, etc.

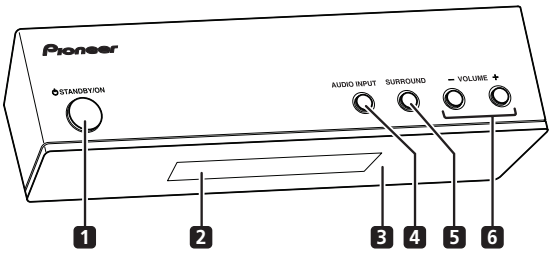
Note

1 Other types of video connection are possible. See page 50 to page 52 for more on this.

2 • Do not use any power cord other than the one supplied with this system.
• Do not use the supplied power cord for any purpose other than connecting to this system.

Chapter 3
Controls and displays

Display unit



1 ⏻ STANDBY/ON
Press to switch the system on/into standby.

2 Front panel display
See below for details.

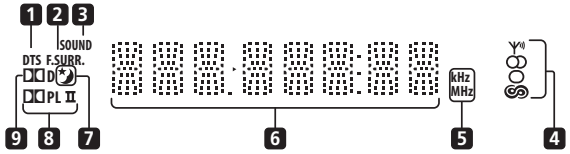
3 IR remote sensor (page 20)

4 AUDIO INPUT (page 33)
Press repeatedly to select one of the external audio inputs (**DVD/DVR1**, **DVD/DVR2**, **DIGITAL** or **ANALOG**).

5 SURROUND
Use to select a Surround mode (page 26).

6 VOLUME +/– buttons
Use to adjust the volume.

Display



1 DTS
Lights during playback of a DTS source (page 26).

2 F.SURR.
Lights when one of the Front Stage Surround Advance listening modes is selected (page 27).

SURR.
Lights when one of the Advanced Surround listening modes is selected (page 27).

3 SOUND
Lights when Sound Retriever is active (page 27).

4 Tuner indicators
– Lights when a broadcast is being received.

– Lights when a stereo FM broadcast is being received in auto stereo mode.

– Lights when FM mono reception is selected.

– Lights when in one of the RDS display or search modes.

5 kHz/MHz
Indicates the frequency unit shown in the character display (**kHz** for AM, **MHz** for FM).

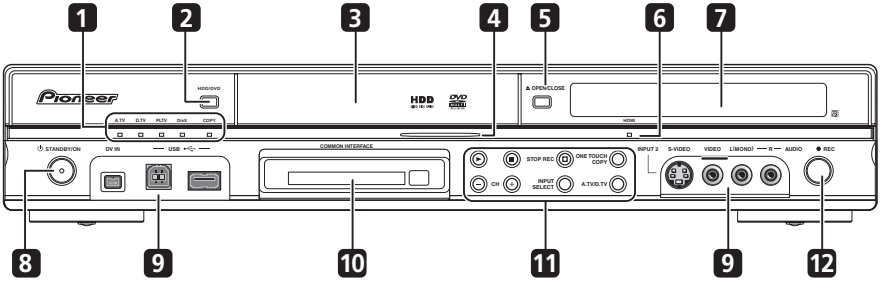
6 Character display

7
Lights when sleep timer is active (page 36).

8 PL II
Lights during Dolby Pro Logic II decoding (page 26).

9 D
Lights during playback of a Dolby Digital source (page 26).

HDD/DVD Recorder



1 A.TV indicator
Lights when analog TV is selected.

D.TV indicator
Lights when digital TV is selected.

PLTV indicator
Lights during recording started using the Pause Live TV feature.

DivX indicator
Lights during DivX playback.

COPY indicator
Lights when copying is underway.

2 HDD/DVD
Press to switch between HDD and DVD for recording and playback.

3 Disc tray

4 HDD/DVD indicator
Indicator lights blue when the hard disk (HDD) is selected; orange when the DVD drive is selected.

5 ⏏ OPEN/CLOSE
Press to open/close the disc tray.

6 HDMI indicator
Lights when this recorder is connected to HDMI (HDCP) compatible component.

7 Front panel display
See *Display* on page 17 for details.

8 ⏻ STANDBY/ON
Press to switch the recorder on/into standby.

9 Front panel inputs
See *Front panel connections* on page 49 for more information on these.

10 COMMON INTERFACE slot
Slot for CA module and smart card used to decode scrambled D.TV channels. See *Common Interface* on page 17.

11 ►
Press to start or restart playback.

■
Press to stop playback.

□ STOP REC
Press to stop recording.

ONE TOUCH COPY
Press to start One Touch Copy of the currently playing title to DVD or the HDD.

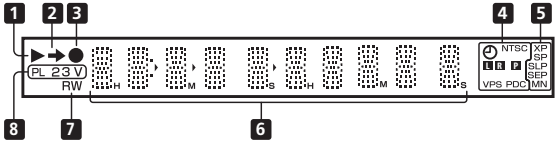
CH +/–
Use to change channels, skip chapters/tracks, etc.

INPUT SELECT
Press to change the input used for recording.

A.TV/D.TV
Switches between analog TV antenna input and digital TV antenna input. The **A.TV** and **D.TV** indicators show which is selected.

12 ● REC
Press to start recording. Press repeatedly to set the recording time in 30 minute blocks.

Display



1 ►
Lights during playback; blinks when playback is paused.

2 ➡
Lights when copying.

3 ●
Lights during recording; blinks when recording is paused.

4 (page 86)
Lights when a timer recording has been set. (Indicator blinks if the timer has been set to DVD but there isn't a recordable disc loaded, or the timer has been set to HDD but the HDD is not recordable.)

NTSC
Lights when the video output signal format is NTSC.

L R (page 140)
Indicates which channels of a bilingual broadcast are recorded.

P (page 139)
Lights when the component video output is set to progressive scan.

VPS/PDC (page 86)
Lights when receiving a VPS/PDC broadcast during a VPS/PDC-enabled timer recording.

5 **Recording quality indicators** (page 83)

XP
Lights when the recording mode is set to **XP** (high quality).

SP
Lights when the recording mode is set to **SP** (standard play).

LP/SLP
Lights when the recording mode is set to **LP** (long play) or **SLP** (super-long play).

EP/SEP
Lights when the recording mode is set to **EP** (extended play) or **SEP** (super-extended play).

MN
Lights when the recording mode is set to **MN** (manual recording level) mode.

6 **Character display**

7 **R/RW**
Lights when a recordable DVD-R or DVD-RW disc is loaded.

8 **PL** (page 105)
Lights when a VR mode disc is loaded and the recorder is in Play List mode.

2 3 (page 145)
Shows the remote control mode (if nothing is displayed, the remote control mode is 1).

V
Lights when an unfinalized Video mode disc is loaded.

Common Interface

To receive scrambled D.TV channels you will need a CA module and smart card provided by your service provider.

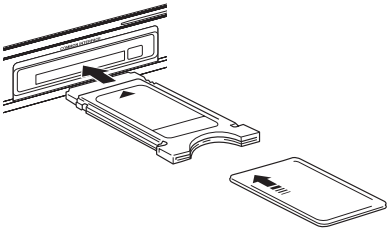
Different CA modules support different encryption systems. This recorder is designed to work with modules that support the DVB standard. Contact your service provider to obtain the right kind of CA module.

Note that neither CA modules nor smart cards are supplied or sold by Pioneer.

Inserting a CA module

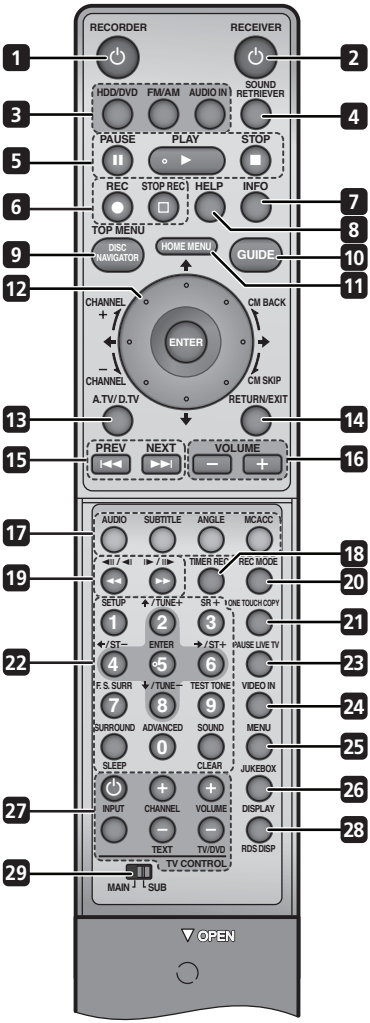
The Common Interface card slot is located on the front panel of the recorder.

- **Insert the CA module into the card slot as far as it will go.**



The Common Interface card slot accepts Type I and Type II PC Cards (PCMCIA cards).

Remote control



Important

- Functions printed in green on the remote control are accessed by switching the MAIN/SUB **MAIN**/**SUB** switch to **SUB**.

1 ⏻ RECORDER
Press to switch the recorder on or into standby.

2 ⏻ RECEIVER
Press to switch the receiver subwoofer on or into standby.

3 Input select buttons

HDD/DVD (page 83)
Press to select the hard disk (HDD) or DVD for recording and playback. The receiver subwoofer's audio input is also switched to **DVD/DVR1**.[1]

FM/AM (page 29)
Press to select the built-in radio tuner.

AUDIO IN (page 33)
Press repeatedly to select one of the receiver subwoofer's audio inputs (**DVD/DVR1**, **DVD/DVR2**, **DIGITAL** or **ANALOG**).

4 SOUND RETRIEVER
Press to restore CD quality sound to compressed audio sources (page 27).

5 Playback controls (page 91)

II PAUSE
Press to pause playback or recording.

► PLAY
Press to start playback.

■ STOP
Press to stop playback.

6 Recording controls (page 83)

● REC
Press to start recording. Press repeatedly to set the recording time in blocks of 30 mins.

When the red action button is visible in a GUIDE Plus+® screen, use for One-Button-Record.

□ STOP REC
Press to stop recording.

7 INFO
While watching D.TV, press to display information banner.

Press to see additional information highlighted item in the EPG.

8 HELP
Press for help on how to use the current GUI screen.

Note

1 If the recorder is set to remote mode 2 or 3, the receiver subwoofer's audio input will not be switched. See also *Remote Control Mode* on page 145.

9 DISC NAVIGATOR (page 94, 105) / **TOP MENU** (page 92)
Press to display the Disc Navigator screen, or the top menu if a DVD-Video or finalized DVD-R/-RW (Video) disc is loaded.

10 GUIDE
Press to display the EPG screen; press again to exit.

11 HOME MENU
Press to display the Home Menu, from which you can navigate many functions of the system.

12 ↑/↓/←/→ and ENTER (Smart Jog)
Used to navigate all on-screen displays. Rotate the **Smart Jog** to move the cursor up or down. Press **ENTER** to select the currently highlighted option.

When using the **Smart Jog**, turn it lighty to avoid pressing down on the cursor keys.

While watching D.TV press **ENTER** to display the Channel List screen.

Rotate the **Smart Jog** when playback is paused to do a frame-by-frame search back/forward.

↩ CM BACK (commercial back)
Turn the **Smart Jog** counter-clockwise during playback to skip progressively backward through the video playing.

·→ CM SKIP (commercial skip)
Turn the **Smart Jog** clockwise during playback to skip progressively forward through the video playing.

CHANNEL +/– (page 81)
While stopped, turn the **Smart Jog** to change the channel of the built-in TV tuner.

13 A.TV/D.TV
Press to switch between analog TV antenna input and digital TV antenna input. The **A.TV** and **D.TV** indicators on the front panel show which is selected.

14 RETURN/EXIT
Press to go back one level in the on-screen menu or display.

Also press to exit the MHEG application.

15 I◄◄ PREV / NEXT ►►I
Press to skip to the previous or next title/chapter/track/folder; or to display the previous or next menu page.

When GUIDE Plus+® is displayed, use to display the previous/next page.

16 VOLUME +/–
Use to adjust the volume.

17 GUIDE Plus+™ Action buttons
Use when an EPG screen is displayed or when tuned to a data channel of a digital broadcast. The function of each button will be described on-screen, and changes depending on the screen being displayed.

AUDIO (page 82, 98, 99)
Press to change the audio language or channel. (When the recorder is stopped, press to change the tuner audio.)

SUBTITLE (page 98)
Press to display/change the subtitles included in multilingual DVD-Video discs.

While watching D.TV, press to change the D.TV subtitles.

ANGLE (page 99)
Press to switch camera angles on discs with multi-angle scenes.

MCACC
Starts the Auto MCACC setup (page 24).

18 TIMER REC (page 63, 86)
Press to set a timer recording.

19 ◄◄ / ►► (page 95)
Press to start reverse or forward scanning. Press again to change the speed.

◄II/◄I, I►/II► (page 96)
While paused, press and hold to start slow-motion playback. Press repeatedly to change the playback speed.

While paused, press to advance a single frame in either direction.

When GUIDE Plus+® is displayed, use to display the previous/next day.

20 REC MODE (page 83)
Press repeatedly to change the recording mode (picture quality).

21 ONE TOUCH COPY (page 114)
Press to start One Touch Copy of the currently playing title to DVD or the HDD.

22 Number buttons
Use the number buttons for track/chapter/title selection; channel selection, and so on.

↑/↓/←/→ (cursor buttons) and ENTER
Use to control receiver functions.

SETUP
Use to access the menu system for surround sound setup, tuner settings and so on (page 24, 29, 30, 31, 36).

SR+
Use to setup the SR+ features and to select the SR+ mode (page 35).

F.S.SURR
Use to select a Front Stage Surround Advance mode (page 27).

TEST TONE
Use to output the test tone (for speaker setup) (page 32).

SURROUND
Use to select a Surround mode (page 26).

ADVANCED
Use to select a Pioneer original surround mode (page 27).

SOUND (page 28)
Press to access the sound menu, from which you can adjust bass and treble, etc.

SLEEP
Press to set the sleep timer (page 36).

CLEAR
Press to clear an entry and start again.

23 PAUSE LIVE TV (page 84)
Press to start recording the current TV channel, but with playback paused, effectively pausing the broadcast.

24 VIDEO IN (page 88)
Press to change the HDD/DVD recorder input to use for recording.

25 MENU (page 92)
Press to display the disc menu if a DVD-Video, finalized DVD-R/-RW (Video mode) or finalized DVD+R/+RW disc is loaded.

When in the GUIDE Plus+® system, use to jump directly to the Menu bar.

26 JUKEBOX (page 121)
Press to display the Jukebox screen of the HDD/DVD recorder, from where you can copy music to the HDD for playback.

27 TV CONTROL (page 148)
After setting up, use these controls to control your TV.

TEXT (page 82)
Press to display Teletext information (in European countries except the UK) or to start the MHEG application display (UK only) if available during digital broadcasts.

TV/DVD
Press to switch between 'TV mode', in which you get the picture and sound from the TV's tuner, and 'DVD mode', in which you get picture and sound from the system's tuner (or an external input).

28 DISPLAY (page 99)
Displays/changes the on-screen information displays.

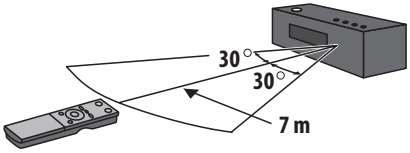
RDS DISP
Changes RDS displays (page 30).

29 MAIN/SUB
Change from **MAIN** to **SUB** to access the green functions/commands on the remote.

Using the remote control

Please keep in mind the following when using the remote control:

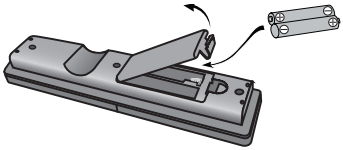
- Make sure that there are no obstacles between the remote and the remote sensor on the unit.
- Remote operation may become unreliable if strong sunlight or fluorescent light is shining on the unit's remote sensor.
- Remote controllers for different devices can interfere with each other. Avoid using remotes for other equipment located close to this unit.
- Replace the batteries when you notice a fall off in the operating range of the remote.
- When the batteries run down or you change the batteries, the remote control mode is reset to Recorder 1. See *Remote Control Mode* on page 145.
- Use within the operating range in front of the remote control sensor on the display unit, as shown.



Putting the batteries in the remote control

1 Open the battery compartment cover on the back of the remote control.

2 Insert two AA/R6 batteries into the battery compartment following the indications (⊕,⊖) inside the compartment.



3 Close the cover.

Caution

Incorrect use of batteries can result in hazards such as leakage and bursting. Please observe the following:

- Don't mix new and old batteries together.
- Don't use different kinds of battery together — although they may look similar, different batteries may have different voltages.
- Make sure that the plus and minus ends of each battery match the indications in the battery compartment.
- Remove batteries from equipment that isn't going to be used for a month or more.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.

WARNING

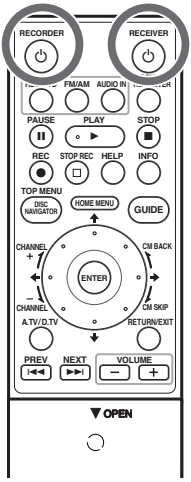
- Do not use or store batteries in direct sunlight or other excessively hot place, such as inside a car or near a heater. This can cause batteries to leak, overheat, explode or catch fire. It can also reduce the life or performance of batteries.

Chapter 4
Before you start

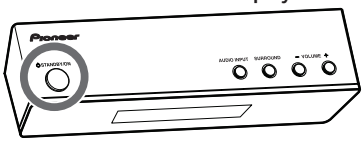
Switching on

The HDD/DVD recorder and receiver subwoofer have separate power switches. The power switch for the receiver subwoofer is located on the display unit.

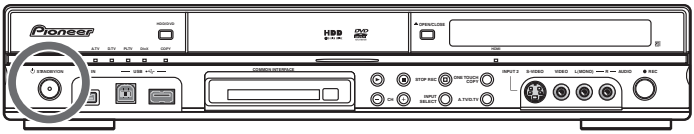
Remote Control



Display Unit



HDD/DVD Recorder (DVR-LX60D)



The table below shows what needs to be switched on for various system functions:

Function	Display unit	HDD/DVD recorder
DVD playback	On	On
CD playback	On	On
HDD playback	On	On
Radio	On	Off
Timer recording	Off	On

Setting up

After connecting and installing the HDD/DVD recorder and receiver subwoofer, complete the steps below to set the system up for use.

HDD/DVD recorder

- Set the date and time, TV channel tuning and the type of TV in the Setup Navigator (page 56).

Receiver subwoofer

- Switch off the display demo mode (page 24).
- Complete the Auto MCACC setup to optimize the surround sound (page 24).

Basic operation

This manual is split into to parts, one covering using the receiver subwoofer, the other using the HDD/DVD recorder. Below are some common operations and where to find them explained in this manual.

Watching a DVD

Remember that when using the remote to control the HDD/DVD recorder, you should point the remote towards the display unit, not the recorder itself.



1 Switch on the display unit (receiver subwoofer).

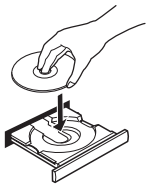
2 Switch on the HDD/DVD recorder.

3 Switch on your TV.
Turn on your TV and make sure that it is set to the correct video input.

4 Press HDD/DVD to select DVD.

5 Press ⏏ OPEN/CLOSE on the HDD/DVD recorder to open the disc tray.

6 Load a disc.
Load a disc with the label side facing up, using the disc tray guide to align the disc (if you're loading a double-sided DVD disc, load it with the side you want to play face-down).



7 Press ► (play) to start playback.

■	Press to stop playback. You can resume playback from the same point by pressing ►. (Press ■ again to cancel the resume function.)
❚❚	Pauses playback, or restarts playback when paused.
◄◄ ►►	Press to start scanning. Press repeatedly to increase the scanning speed.

See *Basic playback* on page 91 for more on playing discs.

8 Adjust the volume.

9 Adjust the sound using the surround effects.
See *Listening to your system* on page 26 for details.

Listening to a CD

1 Switch on the display unit (receiver subwoofer).

2 Switch on the HDD/DVD recorder.

3 Press HDD/DVD to select DVD.

4 Load a CD and start playback (page 93)**.**

5 Adjust the volume.

6 Adjust the sound using the surround effects (page 26)**.**

Watching a title recorded on the HDD

1 Switch on the display unit (receiver subwoofer).

2 Switch on the HDD/DVD recorder.

3 Switch on your TV.

4 Press HDD/DVD to select HDD.

5 Start playback of the HDD title (page 92)**.**

6 Adjust the volume.

7 Adjust the sound using the surround effects (page 26)**.**

Listening to the radio

1 Switch on the display unit (receiver subwoofer).

2 Tune to a station (page 29)**.**

3 Adjust the volume.

4 Adjust the sound using the surround effects (page 26)**.**

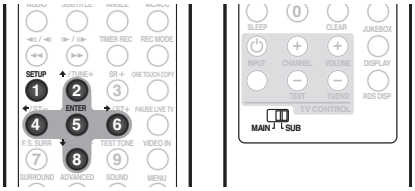
Chapter 5
Getting started

Important

- To access green functions on the remote, move the slider switch from **MAIN** to **SUB**.

System demo setting

Switches the automatic demo feature on or off (this starts when you plug in for the first time).



1 Switch the system into standby.

2 Press SETUP.

3 Use the ⬅/➡ buttons to select DEMO from the menu, then press ENTER.

4 Use the ⬆/⬇ buttons to select a setting, then press ENTER.
Select from:

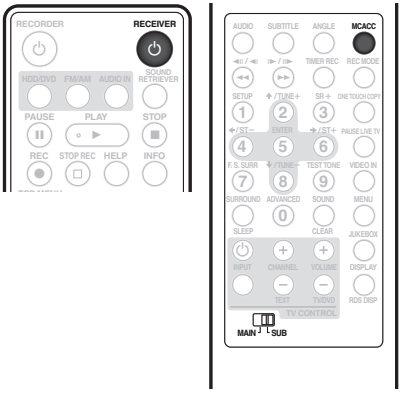
- **DEMO ON** – Switches the demo display on.
- **DEMO OFF** – Switches the demo display off and the system into standby.

Using the Auto MCACC setup for optimal surround sound

The Multichannel Acoustic Calibration (MCACC) system measures the acoustic characteristics of your listening area, taking into account ambient noise, and testing for channel delay and channel level. After you have set up the microphone provided, the system uses the information from a series of test tones to optimize the speaker settings and equalization (Acoustic Calibration EQ) for your particular room.[1]

Important

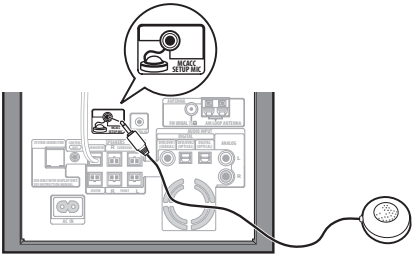
- The test tones used for Auto MCACC setup are loud; however, do not turn the volume down during setup as this may result in a sub-optimal setup.
- Make sure the microphone and speakers are not moved during the MCACC setup.



Note

1 You only need to use the Auto MCACC setup once (unless you change the placement of your speakers or your room layout).

1 Connect the microphone to the MCACC SETUP MIC jack on the rear panel.



2 Place the microphone at your normal listening position.

Place it about ear height, and make sure it is level by using a table or chair.

Make sure there are no obstacles between the speakers and the microphone.

3 If the receiver subwoofer is off, press ⏻ RECEIVER to turn the power on.

4 Press MCACC.

Try to be as quiet as possible after pressing **MCACC**. The volume increases automatically and the system outputs a series of test tones.

- To cancel Auto MCACC setup before it has finished, press **MCACC**. The unit will continue to use the previous settings.
- If the ambient noise level is too high, **NOISY** blinks in the display for five seconds. To exit and check the noise levels[1], press **MCACC**, or to try again, press **ENTER** when **RETRY** shows in the display.
- If you see an **ERR MIC** or **ERR SP** message in the display, there may be a problem with your mic or the speaker connections. To try again, press **ENTER** when you see **RETRY**[2].

When the MCACC setup is complete, the volume level returns to normal, **COMPLETE**[3] shows in the display, and Acoustic Calibration EQ is activated.[4]

Note

1 • If the room environment is not optimal for the Auto MCACC setup (too much ambient noise, echo off the walls, obstacles blocking the speakers from the microphone) the final settings may be incorrect. Check for household appliances (air conditioner, fridge, fan, etc.), that may be affecting the environment and switch them off if necessary.
• Some older TVs may interfere with the operation of the mic. If this seems to be happening, switch off the TV during Auto MCACC setup.

2 If this doesn't work, press **MCACC**, turn off the power, and check the problem indicated by the **ERR** message, then try the Auto MCACC setup again.

3 If **COMPLETE** doesn't appear, it is likely an error occurred during the setup. Please check all connections and try again.

4 See *Listening with Acoustic Calibration EQ* on page 28 to switch on/off Acoustic Calibration EQ.

Chapter 6
Listening to your system

Important

- To access green functions on the remote, move the slider switch from **MAIN** to **SUB**.

Auto listening mode

The Auto listening mode is the simplest way to listen to any source as it was mastered: the output from the speakers mirrors the channels in the source material.

If you set up the system for Front surround (page 6), the Front Surround modes will give the best results (see *Using Front Stage Surround Advance* on page 27).



- **Press SURROUND to select the AUTO listening mode.**

If the source is Dolby Digital or DTS, the front panel **D** or **DTS** indicator lights.

- You can also use the **SURROUND** button on the display unit to change the listening mode.

Listening in surround sound

You can listen to stereo or multichannel sources in surround sound. Surround sound is generated from stereo sources using one of the Dolby Pro Logic decoding modes.

If you set up the system for Front surround (page 6), the Front Surround modes will give the best results (see *Using Front Stage Surround Advance* on page 27).



- **Press SURROUND repeatedly to select a listening mode.**
 - You can also use the **SURROUND** button on the display unit to change the listening mode.

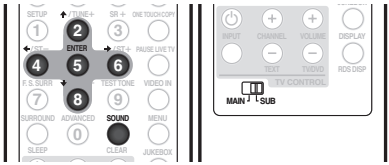
The choices that appear in the display will vary according to the type of source that's playing.

If the source is Dolby Digital or DTS, the front panel **D** or **DTS** indicator lights.

- **AUTO** – Auto listening mode (see above)
- **DOLBY PL** (Dolby Pro Logic) – 4.1 channel surround sound for use with any two-channel source
- **MOVIE** (Dolby Pro Logic II Movie) – 5.1 channel surround sound, especially suited to movie sources, for use with any two-channel source
- **MUSIC** (Dolby Pro Logic II Music) – 5.1 channel surround sound, especially suited to music sources, for use with any two-channel source; see *Dolby Pro Logic II Music settings* below
- **STEREO** – See *Listening in stereo* on page 27.

Dolby Pro Logic II Music settings

When listening in Dolby Pro Logic II Music mode (see above), there are three settings you can adjust: Center Width, Dimension, and Panorama.



1 With Dolby Pro Logic II Music mode active, press SOUND.

2 Use ⬅/➡ to select C WIDTH, DIMEN. or PANORAMA then press ENTER.

- **C WIDTH** (Center Width) – Provides a better blend of the front speakers by spreading the center channel between the front right and left speakers, making it sound wider (higher settings) or narrower (lower settings).
- **DIMEN.** (Dimension) – Adjusts the depth of the surround sound balance from front to back, making the sound more distant (minus settings), or more forward (positive settings).
- **PANORAMA** – Extends the front stereo image to include the surround speakers for a 'wraparound' effect.

3 Use ⬆/⬇ to adjust the setting then press ENTER to confirm.

Using Front Stage Surround Advance

The Front Stage Surround Advance modes are effective when you are using the Front surround speaker setup as described on page 6.



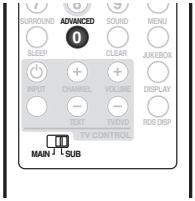
- **Press F.S.SURR to select a Front Stage Surround Advance mode.**

Press repeatedly to select **FOCUS5.1**, **WIDE5.1** or **EXTRAPWR**.

- **FOCUS5.1** – Use to provide a rich surround sound effect directed to the center area where the left and right speakers' sound projection converges.
- **WIDE5.1** – Use to provide a surround sound effect to a wider area than **FOCUS5.1** mode.
- **EXTRAPWR** – Outputs stereo sound (in the case of multi-channel sources, down-mixed stereo sound) from the surround speakers for powerful stereo effect.

Using Advanced Surround

The Advanced Surround effects can be used with any multichannel or stereo source for a variety of additional surround sound effects. These modes are designed to provide optimum listening effect when using the Standard surround setup described on page 8.



- **Press ADVANCED to select an Advanced Surround mode.**

Press repeatedly to select:

- **ACTION** – Suitable for action movies
- **UNPLUGED** – Suitable for acoustic musical sources
- **EXPANDED** – Wide sound field
- **TV SURR.** – Surround sound for mono or stereo TV broadcasts
- **SPORTS** – Suitable for sports programming
- **ADV.GAME** – Suitable for TV game units
- **VIRTUAL** – A virtual surround effect using just the subwoofer and front speakers.
- **X-STEREO** – Powerful surround sound for stereo music sources

Listening in stereo

You can listen to any source — stereo or multichannel — in stereo. When playing a multichannel source, all channels are downmixed to the front left/right speakers and the subwoofer.



- **Press SURROUND repeatedly until STEREO shows in the display.**
 - You can also use the **SURROUND** button on the display unit to change the listening mode.

Using the Sound Retriever

When audio data is removed during the MP3 or WMA compression process, sound quality often suffers from an uneven sound image. The Sound Retriever feature employs new DSP technology that helps bring CD quality sound back to compressed 2-channel audio by restoring sound pressure and smoothing jagged artifacts left over after compression.

Tip

- This feature is effective when used together with the Jukebox function of the HDD/DVD recorder.

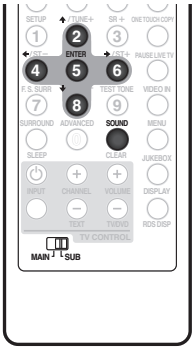


• **While listening to a stereo source, press SOUND RETRIEVER.**
Press repeatedly to switch between:

- **RTRV ON** — Switches the Sound Retriever on.
- **RTRV OFF** — Switches the Sound Retriever off.

Listening with Acoustic Calibration EQ

You can listen to sources using the Acoustic Calibration EQ set in *Using the Auto MCACC setup for optimal surround sound* on page 24.



1 Press SOUND.

2 Use the ⬅/➡ buttons to select MCACC EQ then press ENTER.

3 Use the ⬆/⬇ buttons to switch EQ ON or EQ OFF then press ENTER to confirm.

- On the **EQ OFF** setting, equalization is set to off and speaker settings (channel delay and channel level) remains as it is set.
- Acoustic Calibration EQ is set to on automatically after Auto MCACC setup is used.

Enhancing dialogue

The Dialogue Enhancement feature is designed to make the dialogue stand out from other background sounds in a TV or movie sound track.

1 Press SOUND.

2 Use the ⬅/➡ buttons to select DIALOGUE then press ENTER.

3 Use the ⬆/⬇ buttons to select the amount dialogue enhancement then press ENTER to confirm.
Select between **OFF**, **MID** or **MAX**.

Using Quiet and Midnight listening modes

The Quiet listening feature reduces excessive bass or treble in a sound source.

The Midnight listening feature allows you to hear effective surround sound of movies at low volume levels.

1 Press SOUND.

2 Use the ⬅/➡ buttons to select TONE then press ENTER.

3 Use the ⬆/⬇ buttons to select QUIET or MIDNIGHT then press ENTER to confirm.

- To cancel the Quiet or Midnight listening modes, select **BASS/TRE**.

Adjusting the bass and treble

Use the bass and treble controls to adjust the overall tone.

1 Press SOUND.

2 Use the ⬅/➡ buttons to select TONE then press ENTER.

3 Use the ⬆/⬇ buttons to select BASS/TRE then press ENTER.

- Selecting **BASS/TRE** cancels the Quiet and Midnight listening modes. These modes cannot be used at the same time.

4 Use the ⬅/➡ buttons to select BASS or TREBLE; use the ⬆/⬇ buttons to adjust the sound then press ENTER to confirm.

Boosting the bass level

There are two bass modes you can use to enhance the bass in a source.

1 Press SOUND.

2 Use the ⬅/➡ buttons to select BASSMODE then press ENTER.

3 Use the ⬆/⬇ buttons to select the sound then press ENTER to confirm.
Select between **OFF**, **MUSIC** or **CINEMA**.

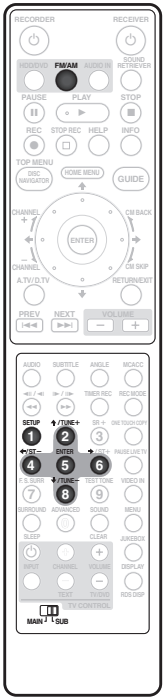
Chapter 7
Listening to the radio

Important

- To access green functions on the remote, move the slider switch from **MAIN** to **SUB**.

Listening to the radio

The tuner can receive both FM and AM broadcasts, and lets you memorize your favorite stations so you don't have to manually tune in every time you want to listen.



1 Press FM/AM to switch to the tuner, then press repeatedly to select the FM or AM band.
The display shows the band and frequency.

2 Tune to a frequency.
There are three tuning modes — manual, auto, and high-speed:

- **Manual tuning** – Press **TUNE +/–** repeatedly to change the displayed frequency.
- **Auto tuning** – Press and hold **TUNE +/–** until the frequency display starts to move, then release. The tuner will stop on the next station it finds. Repeat to keep searching.
- **High-speed tuning** – Press and hold **TUNE +/–** until the frequency display starts to move rapidly. Keep the button held down until you reach the frequency you want. If necessary, fine tune the frequency using the manual tuning method.

Improving poor FM reception

If you're listening to an FM station in stereo but the reception is weak, you can improve the sound quality by switching to mono.

1 Tune to an FM radio station then press SETUP.

2 Use the ⬅/➡ buttons to choose FM MODE then press ENTER.

3 Use the ⬆/⬇ buttons to select FM MONO then press ENTER.
The mono indicator (◯) lights when the tuner is in mono reception mode.

Select **FM AUTO** above to switch back to auto-stereo mode (the stereo indicator (◯◯) lights when receiving a stereo broadcast).

Improving poor AM sound

The simplest way to improve the sound quality of AM radio is to make sure that the TV in the room is switched off. Also try changing the position and direction of the AM loop antenna.

Changing the noise cut mode

If you find that the sound quality is bad even after trying the above, you may be able to improve it using a different noise cut mode. Just choose the one that sounds best.

1 Tune to an AM radio station then press SETUP.

2 Use the ⬅/➡ buttons to choose NOISECUT then press ENTER.

3 Use the ⬆/⬇ buttons to select a Noise cut mode (1, 2 or 3) then press ENTER.

Memorizing stations

You can save up to 30 station presets so that you always have easy access to your favorite stations without having to tune in manually each time.

1 Tune to an AM or FM radio station.
Select mono or auto-stereo reception (FM) or the Noise Cut mode (AM) as necessary. These settings are saved along with the preset.

2 Press SETUP.

3 Use the ⬅/➡ buttons to choose ST.MEM. then press ENTER.

4 Use the ⬆/⬇ buttons to select the station preset you want then press ENTER.

Listening to station presets

1 Make sure the tuner function is selected.

2 Use the ST +/– buttons to select a station preset.

Using RDS

Radio Data System (RDS) is a system used by most FM radio stations to provide listeners with various kinds of information — the name of the station and the kind of show they're broadcasting, for example.

One feature of RDS is that you can search by type of program. For example, you can search for a station that's broadcasting a show with the program type, **JAZZ**.

You can search the following program types:[1]

NEWS – News
AFFAIRS – Current Affairs
INFO – General Information
SPORT – Sport
EDUCATE – Educational
DRAMA – Radio plays, etc.
CULTURE – National or regional culture, theater, etc.
SCIENCE – Science and technology
VARIED – Usually talk-based material, such as quiz shows or interviews
POP M – Pop music
ROCK M – Rock music
EASY M – Easy listening
LIGHT M – 'Light' classical music
CLASSICS – 'Serious' classical music
OTHER M – Music not fitting above categories
WEATHER – Weather reports
FINANCE – Stock market reports, commerce, trading, etc.
CHILDREN – Programs for children
SOCIAL – Social affairs
RELIGION – Programs concerning religion
PHONE IN – Public expressing their views by phone
TRAVEL – Holiday-type travel rather than traffic announcements
LEISURE – Leisure interests and hobbies
JAZZ – Jazz
COUNTRY – Country music
NATION M – Popular music in a language other than English
OLDIES – Popular music from the '50s and '60s
FOLK M – Folk music
DOCUMENT – Documentary

Displaying RDS information

You can display the different types of RDS information available.[2]



- **Press RDS DISP for RDS information.**

Each press changes the display as follows:

- Radio Text (**RT**) – Messages sent by the radio station. For example, a talk radio station may provide a phone number as RT.
- Program Service Name (**PS**) – The name of the radio station.
- Program Type (**PTY**) – This indicates the kind of program currently being broadcast.
- **SEARCH** – PTY search (see below)
- Current tuner frequency

Searching for RDS programs

You can search for a program type listed above.

1 Press the FM/AM button for the FM band.[3]

2 Press RDS DISP repeatedly until SEARCH appears in the display.

3 Use the ⬅/➡ buttons to select the program type you want to hear.

4 Press ENTER to start the search.
The system searches the station presets for a match. If it finds one, searching stops for five sec.

5 If you want to keep listening to the station, press ENTER within the five seconds.
If you don't press **ENTER**, searching resumes.

Note

1 In addition, there are three other program types, **TEST**, **ALARM**, and **NO TYPE**. **ALARM** and **TEST** are used for emergency announcements. You can't search for these, but the tuner will switch automatically to this RDS broadcast signal. **NO TYPE** appears when a program type cannot be found.

2 • If any noise is picked up while displaying the RT scroll, some characters may be displayed incorrectly.
• If you see **NO RADIO TEXT DATA** in the RT display, it means no RT data is sent from the broadcast station. The display will automatically switch to the PS data display (if no PS data, the frequency is displayed).
• In the PTY display, **NO DATA** or **NO TYPE** may be shown. In this case, the PS display is shown after a few seconds.

3 RDS is only possible in the FM band.

Chapter 8
Surround sound settings

Important

- To access green functions on the remote, move the slider switch from **MAIN** to **SUB**.

Using the Setup menu

From the Setup menu you can access all the surround sound settings of the system[1], including channel levels, speaker distances, dynamic range adjustment and dual mono audio playback.

Use the following buttons to use the Setup menu.



Channel level setting

The Auto MCACC feature (see page 24) should give you the best surround sound setup. However you may find that by further adjustment of the channel levels you can improve the surround sound in your listening room.

This method of setting the channel levels allows you to listen to a source and adjust the levels of each playback channel. Note that the channel level settings for stereo playback are independent of the settings for surround sound playback.

A further method of setting the channel levels is to use the test tone method. See *Adjusting the channel levels using the test tone* on page 32 for more on this.

1 Select stereo or multichannel playback for a source.

2 Press SETUP.

3 Use the ←/→ buttons to select CH LEVEL, then press ENTER.

4 Use ←/→ to select a channel; ↑/↓ to adjust the level of that channel.

- You can adjust the level of each channel by ±10 dB.
- If the system is in Stereo or Virtual mode, or a stereo source is playing in Auto mode, you will not be able to adjust the center or surround channels.

5 Press ENTER when you're finished.

- If you use the Auto MCACC feature again, it will overwrite the settings you have made here.

Speaker distance setting

The Auto MCACC feature (see page 24) should give you the best surround sound setup. However you may find that by further adjustment of the speaker distance settings you can improve the surround sound in your listening room.

Set the distance of each speaker from your normal listening position.

1 Press SETUP.

2 Use the ←/→ buttons to select DISTANCE, then press ENTER.

3 Use ←/→ to select a speaker; ↑/↓ to adjust the distance.

Adjust the following speakers:

- **L** – Front left speaker
- **C** – Center speaker
- **R** – Front right speaker
- **SR** – Surround right speaker
- **SL** – Surround left speaker
- **SW** – Subwoofer

Each speaker can be adjusted from **0.3 m** to **9.0 m**.

4 Press ENTER when you're finished.

- If you use the Auto MCACC feature again, it will overwrite the settings you have made here.

Note

1 There are other settings you can adjust from the Setup menu; these are explained in *Listening to the radio* on page 29 and *Additional information* on page 36.

Dynamic Range Control[1]

When watching Dolby Digital or DTS material at low volume, low level sounds — including some of the dialog — can be difficult to hear properly. Using one of the Dynamic Range Control (DRC) settings can help by bringing up the low level sounds, while controlling high level peaks.

Dynamic Range Control works only with Dolby Digital soundtracks and some DTS soundtracks.

1 Press SETUP.

2 Use the ⬅/➡ buttons to select DRC, then press ENTER.

3 Use ⬆/⬇ to select a setting.
Select one of the following:

- **DRC OFF** *(default)* – No dynamic range adjustment (use when listening at higher volume)
- **DRC MID** – Mid setting
- **DRC HIGH** – Dynamic range is reduced (loud sounds are reduced in volume while quieter sounds are increased)

4 Press ENTER to exit.

Dual mono setting[2]

Specifies how dual mono encoded Dolby Digital or DTS soundtracks should be played. You can also use this setting to switch the audio channel on DVD-RW discs recorded with bilingual audio.

1 Press SETUP.

2 Use the ⬅/➡ buttons to select DUALMONO, then press ENTER.

3 Use ⬆/⬇ to select a setting.
Select one of the following:

- **CH1 MONO** *(default)* – Only channel 1 is played
- **CH2 MONO** – Only channel 2 is played
- **CH1/CH2** – Both channels are played through the front speakers

4 Press ENTER to exit.

Adjusting the channel levels using the test tone

If you prefer, you can set the channel levels using a test tone as a reference, rather than playing a source (see *Channel level setting* on page 31). A test tone is played through each speaker in turn, allowing you to adjust the level as it plays.

Note that the channel level settings for stereo sources are independent of the settings for surround sound sources.



1 Press SURROUND to select the Auto listening mode.

- If you want to set the channel levels for stereo (two channel) playback, select the **STEREO** listening mode.

2 Press TEST TONE.
The test tone is output from each speaker in turn.

3 While a test tone is playing, use the ⬆/⬇ buttons to adjust that channel level.
The aim is to adjust the levels so that you hear the test tone at the same volume from each speaker. You can adjust the level of each channel by ±10 dB.

- You can adjust the overall volume of test tone output using the **VOLUME +/–** buttons (this does not affect the channel level settings).
- If the system is in Stereo or Virtual mode, you will not be able to adjust the center or surround channels.
- Because of the ultra low frequencies the subwoofer produces, it may sound quieter than it really is. We suggest adjusting the subwoofer level while listening to a source. See the method described in *Channel level setting* on page 31.

4 When you're done, press ENTER to exit test tone setup.

- If you use the Auto MCACC feature again, it will overwrite the settings you have made here.

Note

1 This setting is effective for the speaker output. A similar adjustment feature is available on the HDD/DVD recorder — see *Audio DRC* on page 141.

2 This setting is effective for the speaker output. A similar adjustment feature is available on the HDD/DVD recorder — see *Switching audio channels* on page 99.

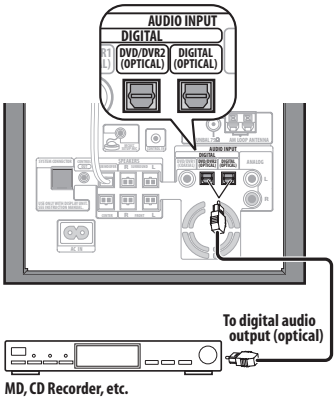
Chapter 9
Other connections

Important

- When connecting this system or changing connections, be sure to switch power off and disconnect the power cord from the wall socket. After completing all connections, connect the power cord to the wall socket.

Connecting auxiliary components

This system has optical-type digital inputs. Use these to connect external components, such as your MD or CD recorder.



- **Connect the DVD/DVR2 (OPTICAL) or DIGITAL (OPTICAL) jack on the rear panel to the optical output of an external playback component.**

These include digital components such as an MD player, digital satellite, or a game system.

Connecting an analog audio component

You can use the **ANALOG** input jacks to connect an analog audio component, such as a tape player. See *Using this system for TV audio* on page 14 for connection details (this explains connecting the audio output from your TV, but any analog audio component can be connected).

Listening to an external audio source

You can connect both analog and digital external audio sources to this system. Digital audio sources include digital satellite receivers, CD recorders, etc. Analog sources include your TV. See also *Using this system for TV audio* on page 14 and *Connecting auxiliary components* above.



1 If the system isn't already on, press ⏻ RECEIVER to switch on.

Also make sure that the external source (TV, satellite receiver, etc.) is switched on.

2 Use the AUDIO IN button to select an audio input source.

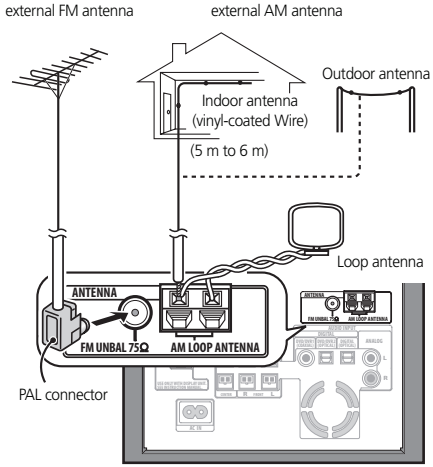


3 If necessary, start playback of the external source.

Connecting external antennas

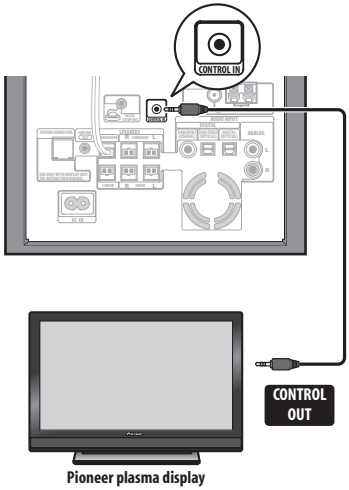
For an external AM antenna, use 5 to 6 meters of vinyl-insulated wire and set up either indoors or outdoors. Leave the loop antenna connected.

For an external FM antenna, use a PAL connector to hook up an external FM antenna.



Using this unit with a Pioneer plasma display

If you have a Pioneer plasma display[1], you can use an SR+ cable[2] to connect it to this unit and take advantage of various convenient features, such as controlling this unit via the plasma display's remote sensor, automatic video input switching of the plasma display, display unit messages appearing on the plasma display screen, and automatic volume muting on the plasma display.



Important

- With an SR+ cable connected, the remote must now be pointed towards your plasma display rather than the display unit of the receiver subwoofer in order to control the receiver subwoofer.

- **Use a 3-ringed miniplug SR+ cable to connect the CONTROL IN jack of this unit to the CONTROL OUT jack of your plasma display.[3]**

Before you can use the extra SR+ features, you need to make a few settings in the unit—see *SR+ Setup for Pioneer plasma displays* on page 35.

Note

1 This system is compatible with all Pioneer plasma displays from 2003 onward.

2 The 3-ringed SR+ cable from Pioneer is commercially available under the part number ADE7095. Contact the Pioneer Customer Support division for more information on obtaining an SR+ cable.

3 You won't be able to use the remote sensor of this unit with the **CONTROL IN** jack of this unit connected to the **CONTROL OUT** jack of your plasma display. You can use the remote sensor of the plasma display (even in standby) as long as the power isn't switched off.

SR+ Setup for Pioneer plasma displays

Make the following settings if you have connected a Pioneer plasma display to this unit using an SR+ cable.



1 Press SR+.

2 Use the ⬅/➡ buttons to choose SETUP, then press ENTER.

3 Use the ⬅/➡ buttons to choose the setting you want to adjust.

The current setting is shown for each option as you cycle through the display. See below for a full list and description of each.

4 Use the ⬆/⬇ buttons to adjust the setting.

5 Repeat steps 3 and 4 to make other settings.

6 When you're done, press ENTER to leave the SR+ setup menu.

Automatic plasma display volume muting

When Volume Control is switched on, the volume of the plasma display is automatically muted when the receiver subwoofer is switched on, or the receiver subwoofer's input function is changed to one that you would want to hear the sound from the receiver subwoofer rather than the plasma display (DVD, for example).

- **VOL.C ON** – When this unit is switched on, or the input function is changed, the volume on the plasma display is muted so only sound from this unit is heard.
- **VOL.C OFF** – This unit does not control the volume of the plasma display.

Automatic plasma display input switching

In order that the plasma display can switch automatically to the correct input when you switch the input function of the receiver subwoofer, you need to tell it how your system is connected.

For example, if you connected your HDD/DVD recorder to the **DV1** input on the receiver subwoofer, and to input 2 on your plasma display, select the **DV1 PDP2** setting here so that when you switch the input function of the receiver subwoofer to **DV1** to watch your HDD/DVD recorder, the plasma display will automatically switch to input 2.

For each receiver subwoofer input function (**DV1** (DVD/DVR1), **DV2** (DVD/DVR2), **DIG** (DIGITAL), **ANA** (ANALOG)) you can select:

- **NONE** – does not switch the plasma display input
- **PDP1** to **PDP7** – switches the plasma display input to one of the numbered inputs. (Note that the number displayed may vary depending on the plasma display to which you connect this unit.)
- **TVTN** – switches the plasma display to its built-in TV tuner

Note

- Note that certain PDP inputs (ex. **PDP7**) may be referred to on your plasma display as 'PC Input'.
- The SR+ setting remains in effect even in standby.
- The SR+ setting does not affect the FM/AM tuner function.

Using the SR+ mode with a Pioneer plasma display

1 Press SR+ on the remote.

2 Use ⬅/➡ to select SR+ ON then press ENTER.

- The SR+ setting is maintained even after switching the receiver subwoofer into standby then back on. Automatic muting and input switching will be effective when the receiver subwoofer is switched on.
- If you disconnect the SR+ cable or switch the plasma display off while SR+ is on, the **SR+ ON** setting remains.
- To switch to **SR+ OFF**, follow steps **1** and **2**, selecting **SR+ OFF**.

Note

- You can control this unit with the plasma display's remote sensor even in standby, but you can't control this unit with either this unit's remote sensor or the plasma display's remote sensor when the plasma display is switched off (AC off) and the SR+ cable is connected to the **CONTROL IN** jack of this unit.

Chapter 10
Additional information

Important

- To access green functions on the remote, move the slider switch from **MAIN** to **SUB**.



Dimming the display

You can choose to dim the display if you find it too bright.[1]

1 Press SETUP.

2 Use the ⬅/➡ buttons to select DIMMER then press ENTER.

3 Use the ⬆/⬇ buttons to select LIGHT or DARK then press ENTER.

DTS CD setting

If you play a DTS-encoded CD, you will need to change this setting to hear the decoded signal.

1 Switch the system into standby.

2 Press SETUP.

3 Use the ⬅/➡ buttons to select CD TYPE from the menu, then press ENTER.

4 Use the ⬆/⬇ buttons to select a setting, then press ENTER.
Select from:

- **NORMAL** – Use for playback of regular audio CDs. Some DTS-encoded CDs will output noise when played.
- **DTS-CD** – Use for playback of DTS-encoded CDs, but note that the beginning of regular CD tracks may be skipped.

Setting the sleep timer



The sleep timer switches off the receiver subwoofer after a specified time so you can fall asleep without worrying about it.[2]

1 Press the SLEEP button to select an option.
Choose between the following options:

- **SLP ON** – Switches off after about an hour
- **SLP OFF** – Cancels the sleep timer

After selecting **SLP ON**, you can press **SLEEP** again to check how much time is left. Each line indicates approximately 12 minutes (remaining):



Resetting the system

Use this procedure to reset all system settings to the factory default.

1 Switch the system on.

2 Press and hold SURROUND then press the ⏻ STANDBY/ON button on the display unit.
The next time you switch on, all the system settings should be reset.

Note

1 The display dims when the sleep timer is set, regardless of this setting.
2 The display dims when the sleep timer is set. The HDD/DVD recorder does not automatically switch off with the sleep timer.

Installation and maintenance

Hints on installation

We want you to enjoy using this system for years to come, so please bear in mind the following points when choosing a location:

Do...

✓ Use in a well-ventilated room.

✓ Place on a solid, flat, level surface, such as a table, shelf or stereo rack.

Don't...

✗ Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.

✗ Place on a window sill or other place where the system will be exposed to direct sunlight.

✗ Use in an excessively dusty or damp environment.

✗ Place directly on top of an amplifier, or other component in your stereo system that becomes hot in use.

✗ Use near a television or monitor as you may experience interference — especially if the television uses an indoor antenna.

✗ Use in a kitchen or other room where the system may be exposed to smoke or steam.

✗ Use on a thick rug or carpet, or cover with cloth — this may prevent proper cooling of the system unit.

✗ Place on an unstable surface, or one that is not large enough to support all four of the system unit's feet.

Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest Pioneer authorized service center or your dealer to carry out repair work.

- If the system does not operate normally due to external effects such as static electricity disconnect the plug from the outlet and insert again to return to normal operating conditions.
- If there is no sound or no multichannel sound from the DVR-LX60D HDD/DVD recorder, try setting the recorder's audio-related settings back to their defaults — see *The Initial Setup menu* on page 137.

General

Problem	Remedy
The power does not turn on, or switches off suddenly (an error message may be displayed at startup).	• Leave the unit plugged in, wait for one minute, then switch back on. • Make sure there are no loose strands of wire touching the unit. This could cause the system to shut off automatically. • Check that the speakers are connected correctly. • Make sure there is enough space for ventilation around the receiver subwoofer. • Make sure the voltage of the mains power source is correct for the model. • Try reducing the volume level. • If the problem persists, take it to your nearest Pioneer authorized service center or your dealer for servicing.
No sound is output when an input function is selected.	• If you're playing from the HDD/DVD recorder, make sure that the digital coaxial cable is connected properly. Also make sure that the HDD/DVD recorder's Digital Out and DTS Out settings are set to **On**, and that the MPEG Out setting is set to **MPEG → PCM**. • If you're using the line input, make sure the component is connected correctly (see *Connecting auxiliary components* on page 33). • Turn up the volume.
No sound from surround or center speakers.	• Refer to *Channel level setting* on page 31 to check the speaker levels. • Check that you haven't selected the **AUTO**, **STEREO**, or **VIRTUAL** mode (see *Listening in surround sound* on page 26). • Connect the speakers properly (refer to *Connecting up* on page 10). • If you're playing from the HDD/DVD recorder, check that the Dolby Digital Out setting is set to **Dolby Digital**. • If the source is 96 kHz, this will be played in stereo. If you want to play it in surround sound, set the HDD/DVD recorder's 96 kHz PCM Out setting to **96 kHz → 48 kHz**.

Problem	Remedy
Can't operate using the remote control.	• Replace the batteries (*Putting the batteries in the remote control* on page 21). • Operate within 7 m, 30° of the remote sensor (*Using the remote control* on page 20). • Remove any obstacles or operate from another position. • Avoid exposing the remote sensor on the front panel to direct light. • For operating the HDD/DVD recorder, make sure that the control cable and coaxial cable are connected (page 10). • If the receiver subwoofer is connected to a Pioneer plasma display with an SR+ cable, check that the plasma display is switched on. Point the remote control at the plasma display in order to operate the receiver subwoofer. • Check that nothing is mistakenly plugged into the **CONTROL IN** jack.

Tuner

Problem	Remedy
Considerable noise in radio broadcasts.	• Connect the AM antenna (refer to *Connecting up* on page 10) and adjust the direction and position for best reception. You may also connect an additional internal or external AM antenna (refer to *Connecting external antennas* on page 34). • Fully extend the FM wire antenna, position for best reception, and secure to a wall. You may also connect an outdoor FM antenna (see *Connecting external antennas* on page 34). • Turn off other equipment that may be causing the noise or move it further away.
Auto tuning does not pick up some stations.	• The radio signal is weak. Auto tuning will only detect radio stations with a good signal. For more sensitive tuning, connect an outdoor antenna.

Error Messages

Message	Description
2CH ONLY	• An operation is prohibited because it is only applicable to 2 channel sources, while the current source is a multichannel source.
96K	• An operation is prohibited because the source is 96 kHz digital.
EXIT	• Appears when a menu is automatically exited after a set period of inactivity.
NOISY	• Background noise is too high to complete MCACC setup successfully.
ERR MIC	• An error occurred during MCACC setup because the microphone is not connected or is not connected properly.
ERR SP	• An error occurred during MCACC setup because the speakers are not connected or are not connected properly.
EEP ERROR	• Contact your Pioneer authorized service center or your dealer for servicing.
NO SPTYP	• Try switching the unit off then on again. If the error still appears, please contact a Pioneer authorized service center or your dealer.

Glossary

Dolby Digital 	A multi-channel audio encoding system developed by Dolby Laboratories that enables far more audio to be stored on a disc than PCM encoding.
Dolby Pro Logic II	A matrix decoding technology developed by Dolby Laboratories that expands any two-channel source audio, such as CDs and TV broadcasts, to a five-channel playback (left/center/right/left surround/right surround), resulting in a surround experience.
DTS 	A multi-channel audio encoding system developed by DTS that enables far more audio to be stored on a disc than PCM encoding.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

"DTS" and "DTS Digital Surround" are registered trademarks of DTS, Inc.

Specifications

SX-LX60D Audio Multi-channel Receiver Subwoofer

- **Amplifier section**

RMS Power Output:
Front, Center, Surround 100 W per channel (1 kHz, 10 % T.H.D., 4 Ω)
Subwoofer 100 W (100 Hz, 10 % T.H.D., 4 Ω)

- **FM tuner section**

Frequency range 87.5 MHz to 108 MHz
Antenna 75 Ω, unbalanced

- **AM tuner section**

Frequency range 531 kHz to 1602 kHz
Antenna Loop antenna

- **Subwoofer section**

Enclosure Bass-reflex floor type
System 16 cm 1-way system
Speaker 16 cm cone type
Nominal impedance 4 Ω
Frequency range 25 Hz to 1.0 kHz
Maximum Input Power 100 W

- **Miscellaneous**

Power requirements AC 220 V to 240 V, 50 Hz/60 Hz
Power consumption 50 W
Power consumption in standby 0.3 W
Dimensions 200 mm (W) x 375 mm (H) x 428 mm (D)
Weight 9.0 kg

- **Accessories**

Remote control 1
Display unit 1
AA/R6 dry cell batteries (to confirm operation) 2
Coaxial cable 1
Control cable 1
Display cable 1
AM loop antenna 1
FM wire antenna 1
Microphone (for Auto MCACC setup) 1
Power cord 1
Non-skid pads (large) 4
Spacers 2
Warranty card 1
This operating instructions

SSP-LX60D Speaker system

(Front speakers x2, surround speakers x2, center speakers x2)

- **Front/surround speakers**

Enclosure Closed-box bookshelf type (magnetically shielded)
System 7.7 cm 1-way system
Speakers 7.7 cm cone type
Nominal impedance 4 Ω
Frequency range 80 Hz to 20 kHz
Maximum input power 100 W
Dimensions . . 100 mm (W) x 100 mm (H) x 102.5 mm (D)
Weight 0.55 kg

- **Center speakers**

Enclosure Closed-box bookshelf type (magnetically shielded)
System 7.7 cm 1-way system
Speakers 7.7 cm cone type
Nominal impedance 8 Ω
Frequency range 80 Hz to 20 kHz
Maximum input power 50 W
Dimensions . . 100 mm (W) x 100 mm (H) x 102.5 mm (D)
Weight 0.55 kg

- **Accessories**

Speaker cables 5
Non-skid pads (small) 24
Brackets 2
Screws 8
Spiral wrap 2

Note

- Specifications and design subject to possible modification without notice, due to improvements.

❖ Section Two

HDD/DVD Recorder

DVR-LX60D

Contents

01 Before you start

Symbols used in this manual 43
Disc/content format playback compatibility 43
About the internal hard disk drive 47

02 Connections

Rear panel connections 48
Front panel connections 49
Connecting a TV antenna 49
Easy connections 50
Using the S-video or component video output 50
Connecting to a cable box or satellite receiver 51
Connecting an external decoder box (1) 52
Connecting an external decoder box (2) 52
Connecting using HDMI 53
Connecting other AV sources 54
Connecting a USB device 55
Plugging in 55

03 Getting started

Switching on and setting up 56
For users receiving digital broadcast services 58
Setting up the GUIDE Plus+® system 59

04 Using the GUIDE Plus+® electronic programme guide

The GUIDE Plus+ system 62
Using the GUIDE Plus+ system 62
Areas 64
GUIDE Plus+ FAQ and troubleshooting 71

05 Using the digital electronic programme guide

The Digital EPG system 73
Using the Digital EPG 74
Setting timer programmes 74
Other useful EPG functions 78

06 Recording

About DVD recording 79
About HDD recording 80
Recorded audio 80
Restrictions on video recording 80
Using the built-in A.TV and D.TV tuners 81
Setting the picture quality/recording time 83
Basic recording from the TV 83
Pause Live TV 84
About timer recordings 86
Timer recording FAQ 87
Simultaneous recording and playback (Chase Play) . . 87
Recording from an external component 88
Playing your recordings on other DVD players 88
Initializing recordable DVD discs 89
DVD-RW Auto Initialize 90

07 Playback

Introduction 91
Basic playback 91
Using the Disc Navigator to browse the contents of a disc 94
Scanning discs 95
Playing in slow motion 96
Frame advance/frame reverse 96
The Play Mode menu 96
Displaying and switching subtitles 98
Switching DVD and DivX soundtracks 98
Switching audio channels 99
Switching camera angles 99
Displaying disc information on-screen 99

08 Playing and recording from a DV camcorder

Playing from a DV camcorder 101
Recording from a DV camcorder 101
About DV 103

09 Editing

Editing options 104
The Disc Navigator screen 105

10 Copying and backup

Introduction 114
One Touch Copy 114
Using Copy Lists 115
Using disc backup 119

11 Using the Jukebox

Copying music to the HDD 121
Copying files via USB 121
Playing music from the Jukebox 123
Editing Jukebox albums 124

12 The PhotoViewer

Locating JPEG picture files 125
Changing the display style of the PhotoViewer 126
Playing a slideshow 126
Reloading files from a disc or USB device 127
Importing files to the HDD 127
Selecting multiple files or folders 128
Copying files to a DVD-R/-RW 128
Copying selected files to a DVD-R/-RW 129
Editing files on the HDD 129
Printing files 131

13 The Disc Setup menu

Basic settings 132
Initialize settings 132
Finalize settings 133
Optimize HDD 133
Initialize HDD 133

14 The Video Adjust menu

Setting the picture quality for TV and external inputs 134
Setting the picture quality for disc playback 135

15 The Initial Setup menu

Using the Initial Setup menu 137
Selecting other languages for language options . . . 147
Using Software Update (Digital tuner) 147

16 Additional information

Setting up the remote to control your TV 148
TV Preset code list 149
Minimum copying times 150
Manual recording modes 151
Troubleshooting 152
If the picture freezes and the front panel and remote control buttons stop working 155
On-screen displays 156
Front-panel displays 158
Language code list 158
Country/Area code list 159
Screen sizes and disc formats 159
Handling discs 160
Cleaning the pickup lens 160
Condensation 160
Hints on installation 161
Moving the recorder 161
Resetting the recorder 161
Specifications (DVR-LX60D) 162

Chapter 1
Before you start

Symbols used in this manual

The following icons are provided to help you quickly identify which instructions you need for which kind of disc.

HDD	HDD
DVD	Any type of DVD disc (recordable or playback only), finalized or not.
DVD-Video	Commercially produced DVD, finalized Video mode DVD-R/-RW.
DVD (Video)	Video mode DVD-R/-RW (unfinalized)
DVD (VR)	VR mode DVD-R/-RW
DVD+R	DVD+R
DVD+RW	DVD+RW
DVD-RAM	DVD-RAM
CD	Audio CD
Video CD	Video CD
Super VCD	Super VCD
WMA/MP3	WMA or MP3 files
DivX	DivX files
ALL	All of the above

Disc/content format playback compatibility

Compatible media

- DVD-RW ver. 1.1 / 1x / 1x to 2x, ver. 1.2 / 2x to 4x / 2x to 6x
- DVD-R ver. 2.0 /1x / 1x to 4x / 1x to 8x / 1x to 16x, ver. 2.1 / 1x to 8x / 1x to 16x
- DVD+RW 1x to 2.4x / 1x to 4x / 3.3x to 8x
- DVD+R 1x to 2.4x / 1x to 4x / 1x to 8x / 1x to 16x
- DVD-RAM ver. 2.0 / 2x, ver. 2.1 / 2x / 2x to 3x / 2x to 5x, ver. 2.2 / 2x / 2x to 3x / 2x to 5x
- DVD-R DL ver. 3.0 / 2x to 4x / 2x to 8x
- DVD+R DL 2.4x / 2.4x to 8x

Note that older models of DVD recorders and DVD writers may reject DVD-RW ver. 1.2 discs and/or corrupt the data on the disc. If you want to share DVD-RW discs between this recorder and an older recorder/writer, we recommend using ver. 1.1 discs.

The following table shows older Pioneer DVD recorders' limited compatibility with DVD-RW ver. 1.2 discs.

Model	Playable	Recordable
DVR-7000	Yes*1,2,3	No
DVR-3100/ DVR-5100H	Yes*1	No

*1 *Discs should be finalized in this recorder before playing. Unfinalized VR mode and Video mode discs may not play.*

*2 **Cannot read the CPRM information** will show in the display when you load a disc. However, this will not affect playback.*

*3 *Copy-once protected disc titles will not play.*

Readable file system

This recorder can play DVDs recorded under the following file systems[1]: ISO 9660*, UDF 1.02, UDF 1.50, UDF 2.00, UDF 2.01.

** ISO 9660 Level 1 or 2 compliant. Romeo and Joliet file systems are both compatible with this recorder.*

Note

1 • Depending on the recording technique used, even files recorded in compatible file systems may not play correctly.
• MP3/WMA files can be played back when recorded onto a DVD that contains no video files and uses the UDF 1.02, UDF 1.50, UDF 2.01 or ISO 9660 file systems.

HDD/DVD Recording and playback compatibility

This recorder can play and record all widely-used DVD disc types, and additionally provides HDD functionality. The table below shows some specific compatibility differences between the different disc types.

	HDD	DVD-R		DVD-RW		DVD+R	DVD +RW	DVD-RAM
Marks used in this manual	HDD	DVD (VR) *1	DVD (Video)	DVD (VR) *1	DVD (Video) *2	DVD+R	DVD+RW	DVD-RAM *13, 16
Logos	HDD HARD DISK DRIVE	DVD R		DVD RW	DVD RW / RW 2	RW DVD+R	RW DVD+ReWritable / RW DVD+ReWritable	DVD RAM
Re-recordable/Erasable	●	*3	*3	●	●	*3	● *14	●
Editing of recorded programmes	●	●	● *4	●	● *4	● *4	● *4	●
Recording of Copy-once protected material	●	● *12		● *12				● *12
Playback in other players/recorders	n/a	*5	● *6	*7	● *6	● *6, 15	● *8	● *9
Chase play	●							
16:9 and 4:3 programme recording	●	●		●				●
Bilingual broadcast recording of both audio channels	● *10, 11	● *11		● *11				● *11

Notes to table

**1 Must be initialized for VR mode recording (page 132).*
**2 Must be initialized for Video mode recording (page 132).*
**3 Erasable, but free space does not increase.*
**4 Cannot erase sections, edit chapters or use playlist editing.*
**5 Must be compatible with DVD-R (VR) playback.*
**6 Finalize using this recorder (may not playback in some units) (page 88).*
**7 Must be compatible with DVD-RW (VR) playback.*
**8 Must be compatible with DVD+RW playback.*
**9 Must be compatible with DVD-RAM playback.*
**10 Only when HDD Recording Format is set to Video Mode Off (page 143).*
**11 Only when the recording mode is not set to LPCM.*
**12 CPRM-compatible discs only.*
**13 Take the disc out of the cartridge before use. Only Panasonic and Maxell discs have been tested to work reliably with this recorder. Discs from other makers may become unusable when recorded or edited.*
**14 Erasing a title does not increase the available recording time, nor increase the number of recordable titles left.*
**15 Must be compatible with DVD+R playback.*
**16 Depending on the disc, it may have to be initialized before it can be recorded (page 132). In this case, initialization will take about an hour.*

DVD is a trademark of DVD Format/Logo Licensing Corporation.

Using DVD-R DL/DVD+R DL discs

DVD-R DL (Dual-Layer) and DVD+R DL (Double-Layer) discs contain two recordable layers on a single side, giving about 1.8 times the recording capacity of a conventional single-layer disc. This recorder can record to both DVD-R DL and DVD+R DL discs.

- If you intend to play DVD-R DL (Video mode) or DVD+R DL discs recorded on this recorder on other DVD recorders/players, you must finalize them. (Note that some DVD recorders/players may not play even finalized DL discs.)
- This logo indicates that the disc is a DVD-R DL or DVD+R DL disc:



Correct operation has been confirmed for DL discs:

- DVD-R DL ver. 3.0/2x to 4x
 Mitsubishi Kagaku Media (Verbatim)
- DVD-R DL ver. 3.0/2x to 8x
 Mitsubishi Kagaku Media (Verbatim)
 That's
 JVC
- DVD+R DL 2.4x
 Mitsubishi Kagaku Media (Verbatim)
 RICOH
- DVD+R DL 2.4x to 8x
 Mitsubishi Kagaku Media (Verbatim)
 RICOH

About DualDisc playback

A DualDisc is a new two -sided disc, one side of which contains DVD content –video, audio, etc. –while the other side contains non-DVD content such as digital audio material.

The non-DVD, audio side of the disc is not compliant with the CD Audio specification and therefore may not play.

It is possible that when loading or ejecting a DualDisc, the opposite side to that being played will be scratched. Scratched discs may not be playable.

The DVD side of a DualDisc plays in this product. DVD -Audio content will not play.

For more detailed information on the DualDisc specification, please refer to the disc manufacturer or disc retailer.

Other disc compatibility

In addition to DVD, this recorder is compatible with a wide range of disc types (media) and formats. Playable discs will generally feature one of the logos on the disc and/or disc packaging shown below. Note however that some disc types, such as recordable CD (and DVD), may be in an unplayable format — see below for further compatibility information.



CD-R/-RW compatibility

This recorder cannot record CD-R or CD-RW discs.

- Readable formats: CD-Audio, Video CD/Super VCD, ISO 9660 CD-ROM* containing MP3, WMA, JPEG or DivX files
 ** ISO 9660 Level 1 or 2 compliant. CD physical format: Mode1, Mode2 XA Form1. Romeo and Joliet file systems are both compatible with this recorder.*
- Multi-session playback: Yes (except CD-Audio and Video CD/Super VCD)
- Unfinalized disc playback: CD-Audio only

Compressed audio compatibility

- Compatible media: DVD-ROM, DVD-R/-RW, DVD+R/+RW, DVD-RAM, CD-ROM, CD-R, CD-RW, USB
- Compatible formats: MPEG-1 Audio Layer 3 (MP3), Windows Media Audio (WMA)
- Sampling rates: 32 kHz, 44.1 kHz or 48 kHz
- Bit-rates: Any (128 kbps or higher recommended)
- Variable bit-rate (VBR) MP3 playback: Yes
- VBR WMA playback: No
- WMA encoder compatibility: Windows Media Codec 8 *(files encoded using Windows Media Codec 9 may be playable but some parts of the specification are not supported; specifically, Pro, Lossless, Voice and VBR)*
- DRM (Digital Rights Management)[1] file playback: No
- File extensions: .mp3, .wma (these must be used for the recorder to recognize MP3 and WMA files – do not use for other file types)
- File structure: Up to 99 folders/999 files (if these limits are exceeded, only files and folders up to these limits are playable)

WMA (Windows Media™ Audio) compatibility

This recorder can playback Windows Media Audio content.

WMA is an acronym for Windows Media Audio and refers to an audio compression technology developed by Microsoft Corporation. WMA content can be encoded by using Windows Media Player for Windows XP, Windows Media Player 9 or Windows Media Player 10 series.

Windows Media is a trademark of Microsoft Corporation.

This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from Microsoft Licensing, Inc.

Note

1 DRM (digital rights management) copy protection is a technology designed to prevent unauthorized copying by restricting playback, etc. of compressed audio files on devices other than the PC (or other recording equipment) used to record it. For detailed information, please see the instruction manuals or help files that came with your PC and/or software.

DivX video compatibility



DivX is a compressed digital video format created by the DivX® video codec from DivX, Inc. This recorder can play DivX video files burned on CD-R/-RW/-ROM discs. Keeping the same terminology as DVD-Video, individual DivX video files are called "Titles". When naming files/titles on a CD-R/-RW disc prior to burning, keep in mind that by default they will be played in alphabetical order.

- Official DivX® Certified product.
- Plays all versions of DivX® video (including DivX® 6) with standard playback of DivX® media files.
- File extensions: .avi and .divx (these must be used for the recorder to recognize DivX video files). *Note that all files with the .avi extension are recognized as MPEG4, but not all of these are necessarily DivX video files and therefore may not be playable on this recorder.*
- File structure: Up to 99 folders or 999 files.

DivX, DivX Certified, and associated logos are trademarks of DivX, Inc. and are used under license.

DivX® VOD content

In order to play DivX VOD (video on demand) content on this recorder, you first need to register the recorder with your DivX VOD content provider. You do this by generating a DivX VOD registration code, which you submit to your provider.

Some DivX VOD content may only be playable a fixed number of times. When you load a disc containing this type of DivX VOD content, the remaining number of plays is shown on-screen and you then have the option of playing the disc (thereby using up one of the remaining plays), or stopping. If you load a disc that contains expired DivX VOD content (for example, content that has zero remaining plays), the message **Rental Expired** is displayed.

If your DivX VOD content allows an unlimited number of plays, then you may load the disc into your recorder and play the content as often as you like, and no message will be displayed.

Important

- DivX VOD content is protected by a DRM system. This restricts playback of content to specific, registered devices.
- If you load a disc that contains DivX VOD content not authorized for this recorder, the message **Authorization Error** is displayed and the content will not play.
- Resetting the recorder (as described in *Resetting the recorder* on page 161) will not cause you to lose your registration code.

JPEG file compatibility

- Compatible formats: Baseline JPEG and EXIF 2.2* still image files
 **File format used by digital still cameras*
- Sampling ratio: 4:4:4, 4:2:2, 4:2:0
- Horizontal resolution: 160 to 5120 pixels
- Vertical resolution: 120 to 3840 pixels
- Progressive JPEG compatible: No
- File extensions: .jpg, .jpeg, .jpe, .jif, .jfif (must be used for the recorder to recognize JPEG files – do not use for other file types)
- File structure: The recorder can load up to 99 folders/999 files at one time *(if there are more files/folders that this on the disc then more can be reloaded)*

PC-created disc compatibility

Discs recorded using a personal computer may not be playable in this recorder due to the setting of the application software used to create the disc. In these particular instances, check with the software publisher for more detailed information.

Discs recorded in packet write mode (UDF format) are not compatible with this recorder.

Check the DVD-R/-RW or CD-R/-RW software disc boxes for additional compatibility information.

Dolby Digital



Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

DTS



"DTS" and "DTS Digital Out" are registered trademarks of DTS, Inc.

DVB

The Digital Video Broadcasting Project, or DVB for short, is a set of open standards for digital broadcasting, covering terrestrial, cable and satellite broadcasts.

Based around the MPEG-2 coding system, these open standards ensure that compliant systems are able to work together, independent of manufacturer.

DVB is extremely flexible, being able to deliver virtually any kind of digital content to the home, including High Definition and Standard Definition TV, broadband multimedia content and interactive services.



DVB is a registered trademark of the DVB Project.

About the internal hard disk drive

The internal hard disk drive (HDD) is a fragile piece of equipment. When used without the proper care or in the wrong conditions, it is possible that recorded contents may be damaged or lost entirely, in some cases making even normal playback or recording impossible. Please understand that in the event of repair or replacement of the HDD or related components, all your HDD recordings will be lost.

Please use the recorder following the guidelines below to protect against possible HDD failure.

The HDD should not be regarded as a place to store recordings permanently. We recommend that you back up your important recordings onto DVD discs in order to protect against accidental loss.

Pioneer cannot under any circumstances accept responsibility for any direct or indirect loss arising from any inconvenience or loss of recorded material resulting from HDD failure.

- Do not move the recorder while it is on (this includes during EPG download when the display shows **EPG**).
- Install and use the recorder on a stable, level surface.
- Do not block the rear vent/cooling fan.
- Do not use the recorder in excessively hot or humid places, or in places that may be subject to sudden changes in temperature. Sudden changes in temperature can cause condensation to form inside the recorder. This can be a cause of HDD failure.
- While the recorder is switched on (including during EPG download when the display shows **EPG**), do not unplug from the wall socket or switch the electricity off from the breaker switch.
- Do not move the recorder immediately after switching it off. If you need to move the recorder, please follow the steps below:

 1 After the message **POWER OFF** is shown on the front panel display, wait at least two minutes.

 2 Unplug from the wall socket.

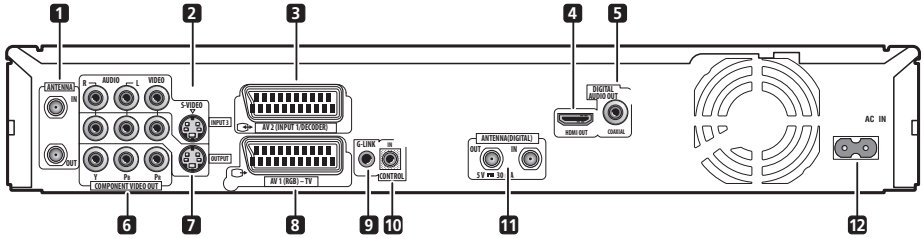
 3 Move the recorder.
- If there's a power failure while the recorder is on there is a chance that some data on the HDD will be lost.
- The HDD is very delicate. If used over time in an improper manner or in an unsuitable environment, it is possible that the HDD will fail. Signs of problems include playback unexpectedly freezing and noticeable block noise (mosaic) in the picture. However, sometimes there will be no warning signs of HDD failure. If the HDD fails, no playback of recorded material will be possible. In this case it will be necessary to replace the HDD unit.

Optimizing HDD performance

As you record and edit material on the HDD, the data on the disk becomes fragmented, eventually affecting the recorder's performance. Before this happens, the recorder will warn you that it is time to optimize the HDD (which you can do from the Disc Setup menu; see *Optimize HDD* on page 133).

Chapter 2
Connections

Rear panel connections



1 ANTENNA IN (RF IN)/OUT
Connect your TV antenna to the **ANTENNA IN (RF IN)** jack. The signal is passed through to the **ANTENNA OUT** jack for connection to your TV.

2 INPUT 3
Stereo analog audio, video and S-video inputs for connection to a VCR or other source component.

3 AV2 (INPUT 1/DECODER) AV connector
Audio/video input/output SCART-type AV connector for connecting to a VCR, or other equipment with a SCART connector. The input accepts video, S-video and RGB. See *AV2/L1 In* on page 140 for how to set this up.

4 HDMI OUT
HDMI output for high quality digital audio and video.

5 DIGITAL AUDIO OUT (COAXIAL)
Connect to the **DVD/DVR1** coaxial jack on the receiver subwoofer.

6 COMPONENT VIDEO OUT
A high-quality video output for connecting to a TV or monitor with a component video input.

7 OUTPUT
Stereo analog audio, video and S-video outputs for connection to a TV or AV amplifier/receiver.

8 AV1 (RGB)-TV AV connector
Audio/video output SCART-type AV connector for connecting to a TV or other equipment with a SCART connector. The video output is switchable between video, S-video and RGB. See *AV1 Out* on page 140 for how to set this up.

9 G-LINK™
Use to connect the supplied G-LINK™ cable to enable GUIDE Plus+® to control an external satellite receiver, etc.

10 CONTROL IN
Connect to the **CONTROL OUT** terminal of the receiver subwoofer.

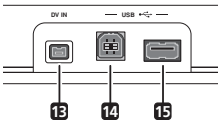
11 ANTENNA (DIGITAL) IN/OUT
Connect your DTV antenna to the **ANTENNA (DIGITAL) IN** jack. The signal is passed through to the **ANTENNA (DIGITAL) OUT** jack for connection to your TV.

12 AC IN – Power inlet

Front panel connections

On the front panel there is a flip-down cover that hides more connections.

Left side:

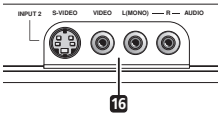


13 DV IN
A DV input i.LINK connector, suitable for connecting a DV camcorder.

14 USB port (Type B)
USB port for connecting a PictBridge-compatible printer or PC.

15 USB port (Type A)
USB port for connecting a digital camera, keyboard or other USB device.

Right side:

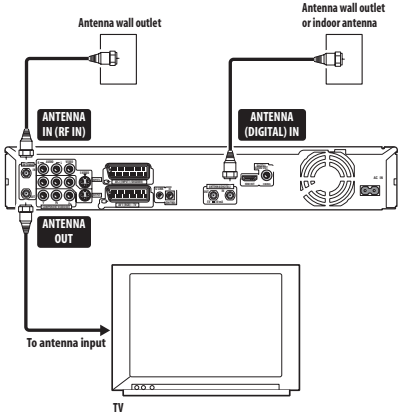


16 INPUT 2
Audio/video input (stereo analog audio; composite and S-video), especially suitable for camcorders, game consoles, portable audio, etc.

Connecting a TV antenna

This recorder has separate built-in TV tuners for terrestrial digital and terrestrial analog TV broadcasts.

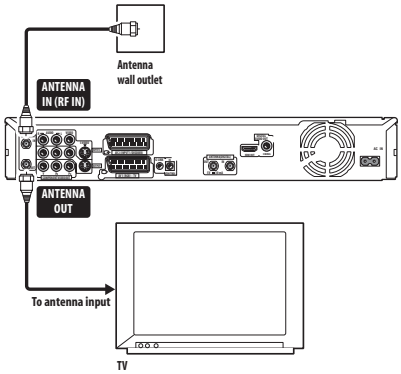
If you are ready to receive digital broadcasts now, use one of the supplied RF antenna cables connect an antenna (either an antenna wall outlet or indoor antenna) to the **ANTENNA (DIGITAL) IN** connector. Next, connect the other supplied RF antenna cable to connect an antenna to the **ANTENNA IN (RF IN)** connector. Lastly, connect the recorder to your TV from the **ANTENNA OUT** connector.



Important

- If there is only one antenna outlet on your wall, use a divider.
- Do not connect a component that can receive analog signals to the **ANTENNA (DIGITAL) OUT**.

If your area is not yet served with terrestrial digital services, connect your antenna's output to the **ANTENNA IN (RF IN)** connector using one of the supplied RF antenna cables. Next, connect the recorder to your TV from the **ANTENNA OUT** connector.



We strongly recommend using an outdoor antenna for better broadcast picture quality.

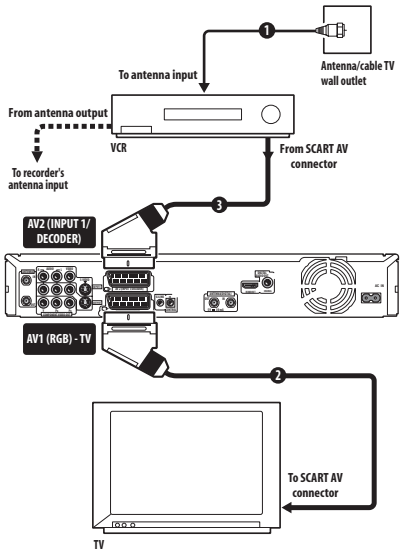
If, however, you want to use an indoor antenna, use one with a signal amplifier rated at 5 V, 30 mA and set *Aerial Power* to **On** in the Initial Setup menu (see page 138).

Easy connections

The setup described below is a basic setup that allows you to watch and record TV programmes, and play discs. Other types of connections are explained starting on the following page.

Important

- These connections use SCART cables (not supplied). If your TV (or VCR) does not have a SCART connection, and you want to use the supplied audio/video cable, see *Basic connections* on page 10.
- The **AV1 (RGB)-TV** AV connector can output ordinary (composite), S-video or RGB video, plus stereo analog audio. The **AV2 (INPUT 1/DECODER)** connector accepts ordinary, S-video and RGB video input, as well as stereo analog audio. See *AV1 Out* and *AV2/L1 In* on page 140 for how to setup these options.
- Before making or changing any rear panel connections, make sure that all components are switched off and unplugged from the wall outlet.



1 Connect your TV antenna to the recorder and TV.

See *Connecting a TV antenna* on page 49 for details.

- If you want to incorporate a VCR in your setup, connect it *before* the recorder (i.e., between the antenna wall outlet and the antenna input on the recorder).

2 Use a SCART cable (not supplied) to connect the AV1 (RGB)-TV AV connector on this recorder to the SCART AV connector on your TV.

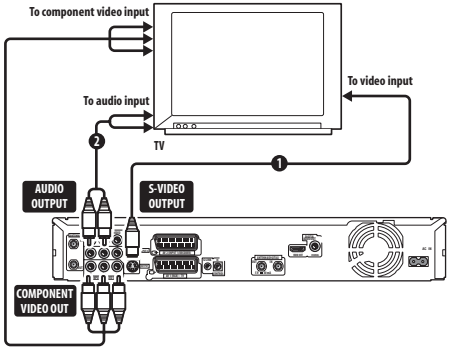
3 Use another SCART cable to connect the AV2 (INPUT 1/DECODER) AV connector to a SCART AV connector on your VCR.

Tip

- This recorder has a 'through' function which allows you to record a TV programme from the built-in TV tuner in this recorder while watching a video playing on your VCR (To use this feature when the recorder is in standby, **Power Save** must be set to **Off** — see *Power Save* on page 137).

Using the S-video or component video output

If you can't use the SCART AV connector to connect your TV to this recorder, there are standard audio/video output jacks, as well as an S-video and component video output.



1 Connect the S-video or component video output to a similar input on your TV.

For an S-video connection, use an S-video cable (not supplied) to connect the **S-VIDEO OUTPUT** jack to an S-video input on your TV.

For a component video connection, use a component video cable (not supplied) to connect the **COMPONENT VIDEO OUT** jacks to a component video input on your TV.

See also *Component Video Out* on page 139 for how to set up the component video output for use with a progressive scan-compatible TV.

2 Connect the AUDIO OUTPUT jacks to the corresponding audio inputs on your TV.
You can use the supplied audio/video cable, leaving the yellow video plug disconnected. Make sure you match up the left and right outputs with their corresponding inputs for correct stereo sound.

Connecting to a cable box or satellite receiver

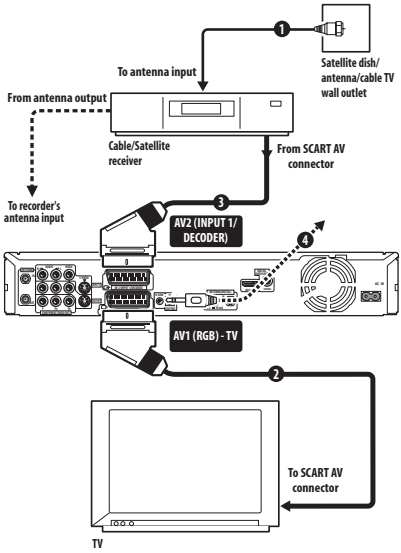
If you have a cable box or satellite receiver with a built-in decoder, connect it to this recorder and your TV as shown on this page.[1] If you are using a separate decoder box for your cable/satellite TV, set up following the instructions on the next page.

Using the setup on this page you can:

- Record any channel by selecting it on the cable box, satellite receiver or digital terrestrial receiver.
- Change channels and set timer recordings on the external receiver using the GUIDE Plus+® system (via the G-LINK™ cable, and after setting up).

Important

- Do not connect this recorder to your TV 'through' your VCR, satellite receiver or other component. Always connect each component directly to your TV or AV amplifier/receiver.
- When using the GUIDE Plus+ system to make a timer recording from an external receiver, make sure that the external receiver is switched on.



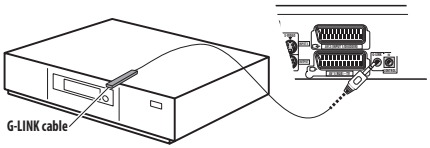
1 Connect RF antenna cables as shown.
See *Connecting a TV antenna* on page 49 for more on RF antenna connections, including from this recorder to your TV.

2 Use a SCART cable (not supplied) to connect the AV1 (RGB)-TV AV connector to a SCART AV connector on your TV.
This enables you to watch discs.

3 Use another SCART cable to connect the AV2 (INPUT 1/DECODER) AV connector to a SCART AV connector on your cable box/satellite receiver.
This enables you to record scrambled TV channels.

4 Plug the supplied G-LINK™ cable to the G-LINK™ jack.
This enables you to control the tuner in the external receiver using the GUIDE Plus+® system.

Position the IR transmitter end of the G-LINK™ cable so that the IR receiver on your cable/satellite receiver will pick up the control signals (see diagram).



Note
1 The diagram shows SCART video connections, but you can alternatively use any of the other audio/video connections.

See the manual that came with your cable/satellite receiver if you're not sure where the IR receiver is on the front panel. Alternatively, experiment with the remote control, operating it from very close range until you find the place where the receiver responds.

Tip

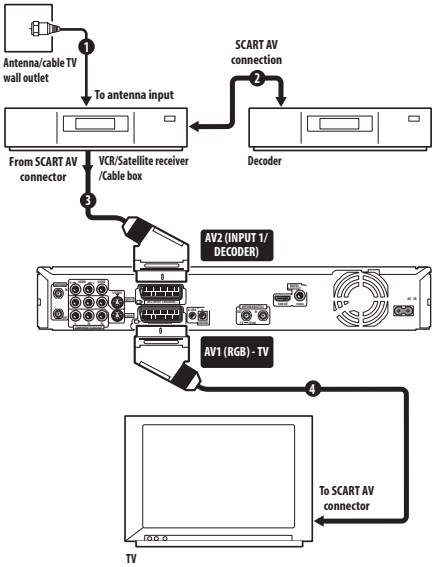
- This recorder has a 'through' function which allows you to record a TV programme from the built-in TV tuner in this recorder while watching a video playing on your VCR (To use this feature when the recorder is in standby, **Power Save** must be set to **Off** — see *Power Save* on page 137).

Connecting an external decoder box (1)

If you have an external, dedicated decoder box for your satellite or cable TV system, use the setup described on this page. See above for how to connect the G-LINK™ cable.

Important

- Do not connect your decoder box directly to this recorder.
- Information from the decoder (for example, relating to pay TV services), is only viewable when this recorder is off (in standby).
- For timer recording to work properly on this recorder, the VCR/satellite receiver/cable box must also be switched on during recording.
- It is not possible to watch one TV programme and record another using this setup.



1 Connect the cable from the antenna/cable TV outlet to the antenna input on your VCR/satellite receiver/cable box.

2 Use a SCART cable (not supplied) to connect your decoder to your VCR/satellite receiver/cable box. See the manual for your decoder box for more detailed instructions.

3 Use a SCART cable to connect your VCR/satellite receiver/cable box to the AV2 (INPUT 1/DECODER) AV connector on this recorder.

4 Use a SCART cable to connect the AV1 (RGB)-TV AV connector to your TV.

Connecting an external decoder box (2)

If you only have a decoder, connect it to this recorder and your TV as shown on this page.[1]

Using the setup on this page you can:

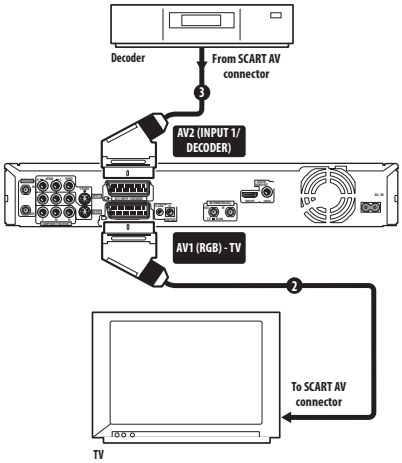
- Record scrambled channels received using the recorder's built-in analog TV tuner.

Note

1 In order to use this setup, you will need to make the following settings from the Initial Setup menu:
- Set the **AV2/L1 In** setting to **Decoder** from the Initial Setup menu (see *AV2/L1 In* on page 140).
- From the **Manual CH Setting** screen, set the **Decoder** setting for the scrambled channels to **On** (see *Manual CH Setting* on page 139).

Important

- Do not connect this recorder 'through' your VCR, satellite receiver or cable box. Always connect each component directly to your TV or AV amplifier/ receiver.



1 Connect your TV antenna to the recorder and TV.
See *Connecting a TV antenna* on page 49 for details.

2 Use a SCART cable (not supplied) to connect the AV1 (RGB)-TV AV connector to a SCART AV connector on your TV.
This enables you to watch discs.

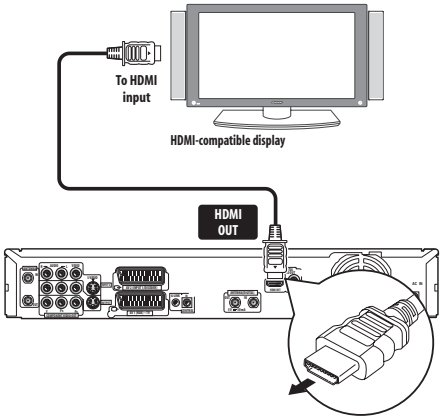
3 Use another SCART cable to connect the AV2 (INPUT 1/DECODER) AV connector to a SCART AV connector on your decoder box.
This enables you to record scrambled TV channels.

Connecting using HDMI

If you have an HDMI or DVI-equipped[1] monitor or display[2], you can connect it to this recorder using an HDMI cable (not supplied).

The HDMI connector outputs uncompressed digital video, as well as almost every kind of digital audio.

1 Use an HDMI cable to connect the HDMI OUT connector on this recorder to an HDMI connector on an HDMI-compatible display.



- The arrow on the cable connector body should be face down for correct alignment with the connector on the recorder.

When connected to an HDMI component or HDCP-compatible DVI component, the HDMI indicator lights.

HDMI setup is generally automatic. There are however settings you can change if you need to. See *HDMI Output (only available when an HDMI device is connected)* on page 144 for more information. Note that the HDMI settings remain in effect until you change them, or connect a new HDMI component.

Important

- An HDMI connection can only be made with DVI-equipped components compatible with both DVI and High-bandwidth Digital Content Protection (HDCP). If you choose to connect to a DVI connector, you will need a DVI to HDMI adaptor cable. A DVI to HDCP connection, however, does not support audio. Consult your local audio dealer for more information.
- The HDMI connection is compatible with 32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 16 bit/20 bit/24 bit 2-channel linear PCM signals, as well as Dolby Digital, DTS and MPEG audio bitstream.
- If your connected component is only compatible with Linear PCM, the signal is output as Linear PCM (DTS audio is not output).

Note

1 Depending on the component you have connected, using a DVI connection may result in unreliable signal transfers.
2 The pixel resolution of this recorder's HDMI video output is (according to TV format): NTSC (720 x 480i/p, 1280 x 720p, 1920 x 1080i/p) and PAL (720 x 576i/p, 1280 x 720p, 1920 x 1080i/p). If your display is not compatible with these resolutions the picture may not be correctly reproduced.

- If you have connected to a Pioneer plasma display, please select the HDMI setup on the display (refer to the supplied manual for more on this).

About HDMI

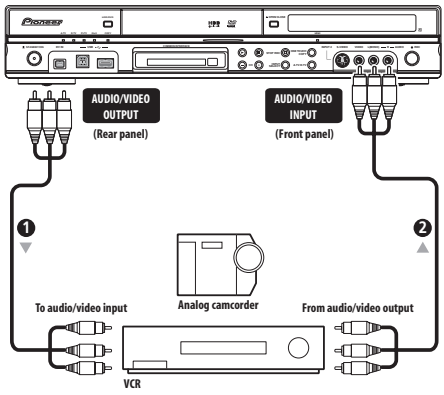
HDMI (High-Definition Multimedia Interface) supports both video and audio on a single digital connection for use with DVD players and recorders, DTV, set-top boxes, and other AV devices. HDMI was developed to provide the technologies of High-bandwidth Digital Content Protection (HDCP) as well as Digital Visual Interface (DVI) in one specification. HDCP is used to protect digital content transmitted and received by DVI-compliant displays.

HDMI has the capability to support standard, enhanced, or high-definition video plus standard to multi-channel surround-sound audio. HDMI features include uncompressed digital video, a bandwidth of up to five gigabits per second (Dual Link), one connector (instead of several cables and connectors), and communication between the AV source and AV devices such as DTVs.

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI licensing LLC.

Connecting other AV sources

Connecting a VCR or analog camcorder



1 Connect a set of audio and video inputs of your VCR or camcorder to a set of outputs on this recorder.
This enables you to record from this recorder to your VCR or camcorder.

- You can use standard video or S-video cables for the video connection.
- Alternatively, you can use the **AV2 (INPUT 1/ DECODER)** SCART connector for audio/video input and output with just one SCART cable.

2 Connect a set of audio and video outputs of your VCR or camcorder to a set of inputs on this recorder.
This enables you to record tapes from your VCR or camcorder.

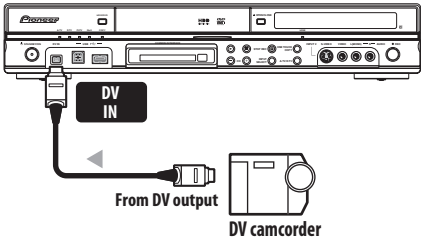
- You can use standard video or S-video cables for the video connection.
- The front panel connections make convenient connections for a camcorder input.
- When connecting an external AV source that only supports monaural sound, only insert the left (white) audio jack to this device. Doing so will allow the same sound track to be recorded to both channels. You must connect to the **INPUT 2** jack on the front panel.

Connecting a DV camcorder

You can connect a DV camcorder or DVD recorder with DV output to the front panel **DV IN** jack.

Important

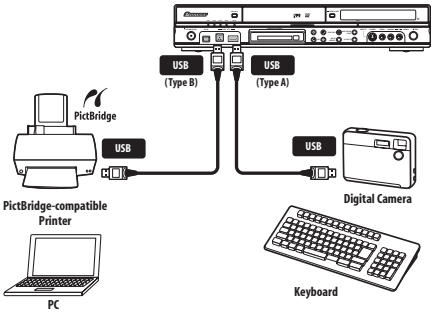
- This jack is for connection to DV equipment only. It is not compatible with digital satellite receivers or D-VHS video decks.



- **Use a DV cable (not supplied) to connect the DV jack of your DV camcorder to the front panel DV IN jack of this recorder.**

Connecting a USB device

Using the USB ports on the front of the recorder you can connect USB devices such as digital cameras, printers, keyboards and PCs. Please also see the instructions that came with the device you want to connect before using.



Important

- Some USB devices may not work with this recorder.
- When connecting a PC to this unit, make sure the power is turned off on both the PC and this unit when you connect them via USB.
- We recommend connecting USB devices when this recorder is switched off (in standby).

JPEG file storage devices

- Digital still camera
- Memory card reader (any type of memory card)
- USB memory

The Mass Storage Class (MSC) device should be FAT-compatible. Note that if the device is partitioned, this recorder may not recognize it.

The Picture Transfer Protocol (PTP) can be used to transfer up to a maximum of 4000 files.

WMA/MP3 file storage devices

- Memory card reader (any type of memory card)
- USB memory
- PC (Use Connect PC function)

The Mass Storage Class (MSC) device should be FAT-compatible. Note that if the device is partitioned, this recorder may not recognize it.

Note that although multi-slot card readers can be used, the recorder will only recognize the first card inserted. To read another card, remove all the cards and insert the card to be read again.

Using a USB hub

- Use a hub compatible with USB 1.1 and/or 2.0.
- Use an independently powered hub (bus powered hubs may not work reliably).
- In the event of unreliable operation with the hub, we recommend plugging the device directly into the recorder's USB port.
- Operation may become unreliable if too many devices are connected to the hub. In this case, try unplugging some devices.
- If the power delivered through a hub is insufficient for the devices connected, communication can become unreliable. In this case, disconnect one or more devices then perform a USB restart. (See *Restart USB Device* on page 145.)

Using a USB printer

- Use a PictBridge-compatible printer.

Using a USB keyboard

- Do not use a PS/2 keyboard connected using a PS/2-USB adapter.

Using a PC

- Note that you can connect a PC to this device via USB to copy WMA and MP3 files. For more information, see *Connect PC* on page 121. To use Connect PC with this device, your PC must run either the Windows XP Home Edition (SP2) or Windows XP Professional (SP2) operating system and be able to run Windows Media Player 10. Even if your PC can run Windows Media Player 10, we cannot guarantee that it will function properly with this device. For more details see the 'Help' section of Windows Media Player 10.

Plugging in

After checking all the connections, plug in the recorder.

- **Use the supplied power cable to connect this recorder to a power outlet.**

Chapter 3
Getting started

Switching on and setting up

When you switch the recorder on for the first time, you can make several basic settings using the Setup Navigator feature. This takes you through setting the clock, the internal TV tuner and the video output.

If you're using the recorder for the first time, we strongly recommend you use the Setup Navigator before starting to use the recorder.

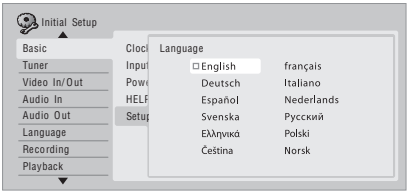
1 Switch on your TV and set the video input to this recorder.

2 RECORDER **Switch on the recorder.**

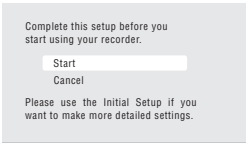
When you switch on for the first time, your TV should display the Setup Navigator screen (If the Setup Navigator doesn't appear, you can also access it from the Initial Setup menu; see page 137).

- If this recorder is connected to a compatible TV using a fully-wired 21-pin SCART cable, the recorder will take a few seconds to download country, TV screen size and language information. (Check the manual that came with your TV for compatibility information.)

3 ENTER **Choose a language (then press ENTER).**



4 ENTER **Start the Setup Navigator.**



- If you don't want to use the Setup Navigator, press ⬇ to select **Cancel**, then press **ENTER** to exit the Setup Navigator.

5 ENTER **Select an Aerial Power setting[1] for the built-in digital tuner.**

- **On**: power is always supplied to the connected aerial, whether the recorder is on or in standby.
- **Auto**: power is only supplied when this recorder is on.
- **Off**: power is never supplied to the aerial.

6 ENTER **Select 'Auto Scan' to start scanning for D.TV channels.**

- Select **Do not set** if you want to skip D.TV channel setup (because they have already been set up, for example), then skip to step **8** below.

7 ENTER **Select your country.**

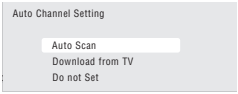
The recorder starts scanning for new channels. After the scan is complete the recorder will let you know how many new channels were found.

- The country setting will apply to both the digital and analog TV tuners.
- The clock will also be set automatically here if D.TV channels are found.
- If no new channels were found a message appears asking if you want to scan again. Check the aerial connection before selecting **Yes**. (If you select No, skip to step **8** below.)

Note

1 If the recorder does not accept the **On** or **Auto** setting (the highlight jumps back to **Off**), check that the antenna is properly connected and that it is not shorted, then try making the setting again.

8 Select the analog TV (A.TV) Auto Channel Setting ('Auto Scan' or 'Download from TV'), or 'Do not set'.



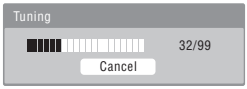
- Select **Do not set** if you want to skip channel setup (because they have already been set up, for example).
- You can only use the **Download from TV** feature if this recorder is connected to your TV using a fully-wired 21-pin SCART cable via the **AV1 (RGB)-TV** connector, and if your TV supports this function (check your TV's instruction manual for more details).

- **Select your country.**



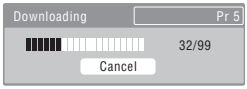
- **Auto-tuning channels**

The **Auto Scan** option automatically scans and sets the channel presets.



- **Downloading channels from your TV**

Use the **Download from TV** option to download all the channels that your TV is tuned to.



9 Select 'Auto' for automatic time setting, or 'Manual' to set the clock manually.

If the clock was already set from a D.TV channel in step **6**, this step is skipped.



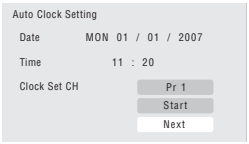
- **Auto clock setting**

Some TV channels broadcast time signals together with the programme. This recorder can use these signals to set the clock automatically.

Set 'Clock Set CH' to the channel preset number that broadcasts a time signal, then move the cursor down to 'Start' and press ENTER.



The recorder takes a short while to set the time. After you see that it's set, select **Next** to proceed.



If the time could not be set automatically, press **RETURN/EXIT** to go back to the previous screen and select **Manual**.

- **Manual clock setting**

If no stations in your area are broadcasting time signals, you can set the clock manually.

Use the ⬅/➡ buttons to set your time zone.

You can set this by selecting a city or a time relative to GMT.



Press ⬇ then use the ⬅/➡ buttons to select 'On' or 'Off' for summer time, then press ENTER.

Select **On** if you are currently using summer time.



Set the date (day/month/year) and time, then press ENTER to make all the settings.



- Use the ⬆/⬇ buttons to change the value in the highlighted field.
- Use the ⬅/➡ buttons to move from one field to another.
- You can go back to the previous screen in the Setup Navigator by pressing **RETURN/EXIT**.

10 Select the EPG (Electronic Programme Guide) type to use.

- **GUIDE Plus+**: Use the Gemstar GUIDE Plus+ EPG (see also *Setting up the GUIDE Plus+® system* on page 59 and *Using the GUIDE Plus+® electronic programme guide* on page 62).
- **Digital EPG**: Use the SI EPG (programme information broadcast together with digital channels).
- If no channels were found when scanning for digital TV channels then this screen does not appear and the EPG is set according to the country set in step **7** above.

11 Select the TV screen type, 'Wide (16:9)' or 'Standard (4:3)'.

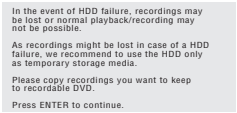


12 Select whether or not your TV is compatible with progressive scan video.

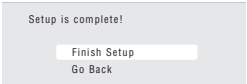


- This screen is not displayed when an HDMI signal is being output.

13 ENTER Press to continue after reading the HDD caution.



14 Select 'Finish Setup' to exit the Setup Navigator, or 'Go Back' if you want to start again.



That completes basic setup using the Setup Navigator.

- If there are blank channels with no station, you can set these to skip using the manual channel setting. See *Manual CH Setting* on page 139.

For users receiving digital broadcast services

This unit can set its internal clock automatically from digital broadcasts. However, depending on the broadcaster, the clock information received may not be accurate.

Use the following procedure (while the recorder is not recording) to set the clock manually.

1 HOME MENU Press HOME MENU.

2 Select 'Initial Setup' > 'Basic' > 'Clock Setting'.

3 Highlight the time setting.

4 ENTER Press to display the manual clock setting screen.

5 Set the correct time.

Return to automatic clock setting

- To return to the automatic clock setting, follow the instructions for 'Replace Channels' (page 137).

Setting up the GUIDE Plus+® system

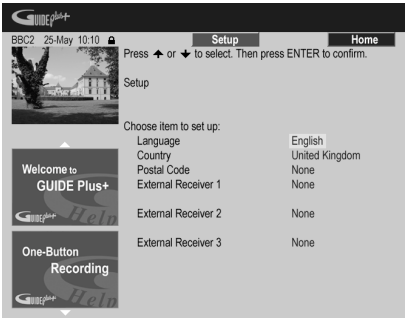
This section is only applicable if you chose to use the GUIDE Plus+ system as the EPG type in step **10** *of the Setup Navigator above.*

The GUIDE Plus+® system is a free, interactive on-screen television programming guide. The system offers programme listings for all major channels, one-touch recording, search by genre, recommendations according to your profile and more.

For the GUIDE Plus+ system to function correctly, it is important that you set the language and country correctly in the Setup Navigator, and that you have performed a scan for available channels, as these are all used by the GUIDE Plus+ system. If any of these things are not yet set, please run the Setup Navigator first (see *Switching on and setting up* on page 56).

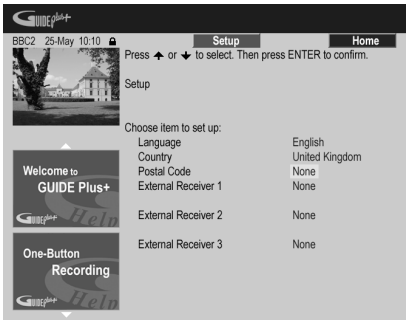
TV listings information is received via 'host channels'. In order to receive the correct TV listings information for your country or region you need to set up the GUIDE Plus+ system and 'download' the TV listings information. The initial download can take up to 24 hours, but once this is done, all future updates are automatic.

1 GUIDE **Display the GUIDE Plus+ setup menu.**

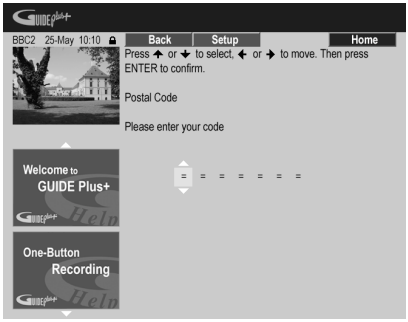


The language and country settings are already set to whatever you selected in the Setup Navigator.

2 **Highlight 'Postal Code'.**

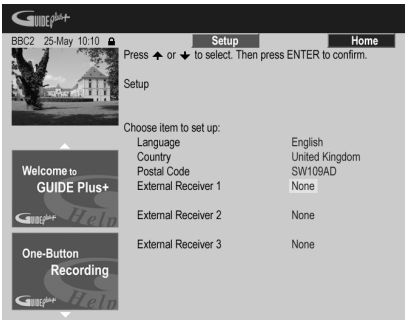


3 **Enter your postal code.**



The system uses your postal code to identify which TV listings data is correct for the area in which you live, so it is important that you enter it correctly.

4 If you are using an external receiver (such as a satellite receiver) with the supplied G-LINK cable, complete this step, otherwise jump to step 5 below.



- See *Connecting to a cable box or satellite receiver* on page 51 for more on using the supplied G-LINK cable.
- Select **External Receiver 1**, **2** or **3**, then press **ENTER**. (If you have just one external receiver, use **External Receiver 1**. You can add further receivers in **2** and **3** if you need to.)

After pressing **ENTER**:

- Select your reception method (**Terrestrial**, **Cable** or **Satellite**).
- Select your provider (if applicable).
- Select the brand of your external receiver.
- Identify which input your external receiver is connected to.

After completing these steps the recorder will try and communicate with your external receiver and change the channel via the G-LINK cable. If the channel was successfully changed, select **Yes** to confirm.

If the channel did not change, select **No**. The GUIDE Plus+ system will try other codes assigned to your external receiver. If none of the codes changes the channel successfully, tune your external receiver to the host channel for your country (refer to step **5** below) and leave it on overnight. The recorder needs to be in standby; it will wake up automatically and download new codes from the host channel. The next day, try this setup process again:

- Press **GUIDE** to display the GUIDE Plus+ screen.
- Press ⬆ to highlight the Menu bar, then use ➡ to reach the Setup area and select Setup.
- Continue setting up from the start of this step again.

If your external receiver still doesn't respond to the G-LINK controller, please call customer support and report the brand and model of your external receiver.

See also *GUIDE Plus+ FAQ and troubleshooting* on page 71.

5 Identify the host channel for your country.

The TV listings information available in the GUIDE Plus+ system is distributed throughout Europe by selected broadcasters called *host channels*. It is important that the host (analog) channel for your country is correctly identified in order to receive listings information (EPG download).

Follow **A**, **B** or **C** below depending on your setup:

A If you *are not* using an external receiver, this recorder will automatically scan all channels for the host channel:

- Leave the recorder in standby overnight (do *not* leave it switched on).

B If you *are* using an external receiver, you need to identify the host channel from the table below:

Country/ Region	Host channels	Comments
Austria	Eurosport	
Belgium	RTL-TVI	
France	Canal+	Analog only
Germany	Eurosport	
Italy	MTV	Analog only
Netherlands	Eurosport	
Spain	Tele 5	Analog only
Switzerland	Eurosport	
UK	ITV, Eurosport	ITV is analog only. Use Eurosport if you are a SKY subscriber and you no longer have an analog terrestrial antenna.

- Tune your external receiver to the appropriate host channel and leave the receiver on and the recorder in standby overnight.

C If you use *both* an external receiver and this recorder as sources, follow the instructions above for setting up without an external receiver. Only if this is unsuccessful try the external receiver method.

About EPG download

- EPG data can only be received when the recorder is in standby. (When not using the recorder, therefore, please switch it into standby.) If you're using an external receiver, leave this on when EPG data is downloading.
- If you cannot receive any of the host channels (see the above table) then you won't be able to use the GUIDE Plus+ system. In this case do not set the postal code (or set Country to **Other**) in the GUIDE Plus+ setup screen. (When GUIDE Plus+ service starts in your area, set the postal code again.)

If digital broadcasts start in your area, please set the *EPG Type Select* setting in the Initial Setup menu to **Digital EPG**.

- Even if you can't use the EPG functions where you live, you can still set VIDEO Plus+ recordings and manual recordings — see *Setting a manual recording* on page 69.
- The front panel display shows **EPG** when receiving data. If you power on the recorder during an EPG download, the download is cancelled.
- EPG data may be received several times a day. All updates are automatic.
- When downloading EPG data, the recorder may sound as though it is on. This is normal.

Checking the downloaded data the following day

1 GUIDE **Display the GUIDE Plus+ screen.**



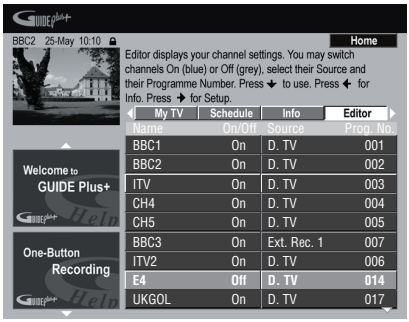
You should see a grid filled with channel logos and TV listings information. Use the ↑/↓ buttons to review the list. If you notice that there are channels missing, or that there are channels in the list that you don't get, go to the Editor screen:

- Press ↑ repeatedly until the Menu bar is highlighted.
- Press → until **Editor** is highlighted. The main area of the screen now shows a list of channels. Those that are turned **ON** are displayed in the grid; those that are **OFF** are hidden. Use the ↑/↓/←/→ buttons to move down the list and turn channels **ON** or **OFF** as necessary.
- For any channel that you turn **ON**, the GUIDE Plus+ system will need to know how it is received (the source) and on which programme number. The source may be the built-in tuner of this recorder, or an external receiver. The programme number is the number on which the channel can be found on its receiving device/source. The entry in the Editor screen must match this number for correct recording of that channel.
- The above is especially important for the 'host channel'. Please make sure that the host channel is always switched **ON**.



2 Change the programme numbers as you like.

Changing the programme numbers allows you to decide the order in which the channels change when stepping through them sequentially. You can do this to group certain channels together, for example.



3 When you're done, press the BLUE Action button (Home) to get back to the GUIDE Plus+ home screen.

- You can find detailed information on using the GUIDE Plus+ system in the following chapter.

Chapter 4

Using the GUIDE Plus+® electronic programme guide

This chapter is only applicable if the EPG Type Select setting made in the Setup Navigator (or the Initial Setup menu) is set to **GUIDE Plus+**.

The GUIDE Plus+ system

The GUIDE Plus+® system* is a free, interactive on-screen television programming guide.[1] The system provides programme listings for all major channels, one-touch recording, searching by genre, recommendations according to your profile and more. The GUIDE Plus+ system is a convenient way to find out what's on right now or during the coming week, by channel or by genre. The GUIDE Plus+ system also allows you to automatically set your viewing and recording selections quickly and easily.

In order to receive the correct TV listings information for your country or region you need to set up the GUIDE Plus+ system and 'download' the TV listings information. If you haven't already done this, please turn to *Setting up the GUIDE Plus+® system* on page 59 before proceeding.

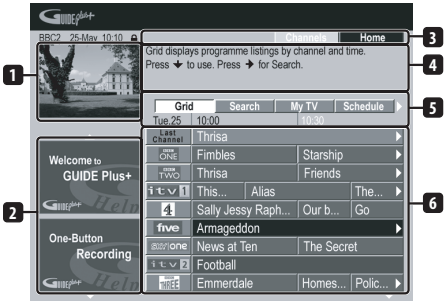
** GUIDE Plus+, SHOWVIEW, VIDEO Plus+, G-LINK are (1) registered trademarks or trademarks of, (2) manufactured under license from and (3) subject of various international patents and patent applications owned by, or licensed to, Gemstar-TV Guide International, Inc. and/or its related affiliates.*

Legal Notice

GEMSTAR-TV GUIDE INTERNATIONAL, INC. AND/OR ITS RELATED AFFILIATES ARE NOT IN ANY WAY LIABLE FOR THE ACCURACY OF THE PROGRAMME SCHEDULE INFORMATION PROVIDED BY THE GUIDE PLUS+ SYSTEM. IN NO EVENT SHALL GEMSTAR-TV GUIDE INTERNATIONAL, INC. AND/OR ITS RELATED AFFILIATES BE LIABLE FOR ANY AMOUNTS REPRESENTING LOSS OF PROFITS, LOSS OF BUSINESS, OR INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE PROVISION OR USE OF ANY INFORMATION, EQUIPMENT, OR SERVICES RELATING TO THE GUIDE PLUS+ SYSTEM.

Using the GUIDE Plus+ system

All the various features and areas are colour-coded for ease of navigation. All screens (with the exception of some setup screens) have the following common elements:



1 Video window – Allows you to continue watching the current programme while using the GUIDE Plus+ system.

2 Information panels – Display programme promotions or instructions on the GUIDE Plus+ system.

3 Action bar – Colour-coded Action buttons change function depending on the area.

4 Information box – Shows short programme descriptions or help menus.

5 Menu bar – Gives access to the various areas of the GUIDE Plus+ system.

6 Grid – Shows TV listings information for the next seven days by channel and time.

Note

1 The GUIDE Plus+ system can't be used when the Input Line System is set to **525 System** (see also *Input Line System* on page 137).

GUIDE Plus+ navigation

The table below shows a summary of the remote buttons you'll use to navigate the GUIDE Plus+ system.

Key	What it does
● **REC**	Press to set or cancel One Button Recording.
GUIDE	Press to display the GUIDE Plus+ screen (also use to exit).
↑/↓/←/→	Use to navigate screens (highlight an item).
RED, **GREEN**, **YELLOW**, **BLUE**	Action buttons that change functionality depending on the Area.
MENU	Press to jump directly to the Menu bar.
TIMER REC	Press to go directly to the Schedule area.
INFO	Press to display extended information for the current programme.
ENTER	Press to confirm a selection or to leave the GUIDE Plus+ screen.
Number buttons	Use for numeric entry.
I◄◄ **PREV**/ ►►I **NEXT**	Press to select the previous/next page of information (in the grid, for example).
◄◄/►►	Press to select the previous/next day.

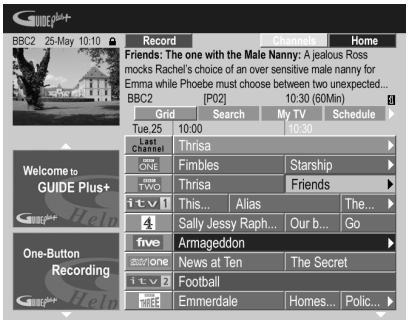
One-Button-Record

The **RED** Action button (Record) is visible anytime you can highlight a programme title, including from the Grid, after a search, or in your recommendations in the My TV area.

The programme name, date, channel, recording start and end times are all set automatically when you set a timer recording using One-Button-Record.

If you need to, you can edit the settings at any time before the recording is due to start (see *Editing a scheduled recording* on page 67).

1 **Highlight a programme title.**



2 **Press the RED Action button (Record).**

The programme is now set for recording. When the programme is due to start, the recorder will switch to the correct channel and start recording[1].

- You can also use the ● **REC** button to set the recording.
- You can review the shows you have set to record in the Schedule Area (see also *The Schedule Area* on page 67).

Lock/Unlock video window

When you enter the GUIDE Plus+ system, the channel you were watching remains visible in the video window. The date stamp above the window lets you know the channel, date and time.

The default setting for this window is 'locked', as indicated by a closed padlock icon above the video window. When locked, the video window always shows the channel you were previously watching as you move up and down through the listings grid.

If you prefer, you can unlock the video window so that as you highlight different channels in the listings grid, that channel is shown in the video window.

Note

1 Recording times set using the GUIDE Plus+ system do not automatically change to reflect any changes that may occur in the programme broadcast schedules.

1 **Highlight a channel logo.**



Channel logos are displayed to the left of programme titles.

2 **Press the RED Action button (Unlock).**
The padlock icon above the video window becomes unlocked. It remains unlocked for the remainder of your current TV viewing session.

If you want to lock the video window again, follow the same procedure. The **RED** Action button will now act as Lock.

Channel mosaic screen

You can switch the display style of channels in the Grid Area, Schedule Area or My TV Area from a list to a mosaic of channel icons by pressing the **YELLOW** Action button. Select the channel icon you want using the cursor buttons, then press **ENTER** to return to the previous screen on that channel.

Areas

The GUIDE Plus+® system consists of seven *Areas*. All Areas can be accessed from the Menu bar.

- **Grid** – The GUIDE Plus+ system Home Area. Displays TV listings information for the next seven days by time and channel.
- **Search** – Search for TV programmes by category (e.g., Sport), subcategory (e.g., Football) or keyword.
- **My TV** – Set up a profile and receive recommendations according to your preferences.
- **Schedule** – Show all scheduled recordings.
- **Info** – Area for additional information, such as weather (not available in all regions).
- **Editor** – Change channel settings.
- **Setup** – Setup the GUIDE Plus+® system.

The Grid Area

The Grid is the main TV listings screen of the GUIDE Plus+ system and is the first screen that you see when you press **GUIDE**. You can see TV listings for the next seven days, starting with the current day.

When you highlight a programme in the Grid, you can see information about it in the Information Box, including title, synopsis, channel, source, time and length. If there is an **i** symbol in the Information Box, it means that there is an extended synopsis available. Press the **INFO** button to see it.

In some countries, you can also see a rating for a particular programme (mostly movies). These ratings are provided by local partners, such as TV magazines.

From the Grid Area you can:

- View and scroll through programme listings
- Read programme synopses
- Tune to a programme that's currently showing[1]
- Set a programme to record
- Lock or unlock the video window
- Access Information panels

Browsing the Grid

Use the following remote buttons to browse the grid:

↑/↓/←/→ (cursor buttons) – Navigate the Grid

I◄◄ **PREV**/►►I **NEXT** – Previous / next page

◄◄/►► – Previous / next day

BLUE Action button – Return to the current time/date in the Grid

ENTER – Press on the current selection to exit the GUIDE Plus+ system and start watching the programme

The Search Area

From the Search Area you can:

- Search by category
- Search by subcategory
- Search by keyword
- Read programme synopses
- Tune to a programme that's currently showing
- Set a programme to record
- Access Information panels

Note

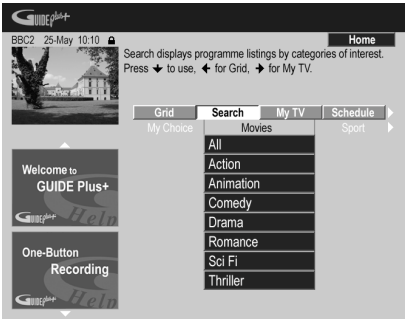
1 If you're using an external tuner (satellite tuner, for example), there will be a short delay of a couple of seconds while it tunes to the channel. This is normal.

Searching

You can search for programmes by category, subcategory or by keyword (My Choice). Categories for searching include Movies (purple), Sport (green), Children (blue) and Others (teal). In some countries there is a further subcategory available called 'Tip of the Day'. These are programmes recommended by a local partner, such as a TV magazine.

1 **Select 'Search' from the Menu bar.**

2 **Select a category and a subcategory.**



- If you choose **All** as the subcategory, all programmes in the category you selected will show up in the search results.

3 **Start the search.**

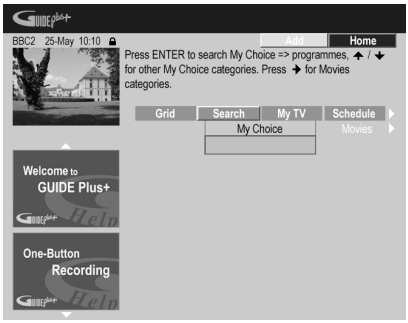
The search results are shown sorted by time and date.

- If no search results are displayed, it means there are no programmes for the current day that match your search criteria.

Using My Choice keywords for a search

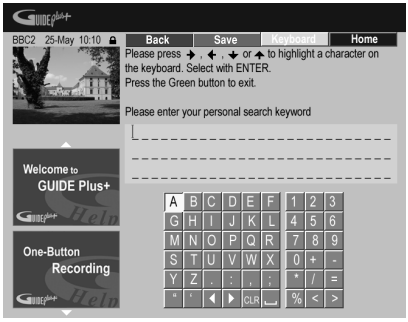
In addition to the standard categories, you can also set your own keywords.

1 **Access My Choice.**



2 **Press the YELLOW Action button to add a keyword.**

3 **Enter a keyword to appear in the menu.**



When you're finished, press the **GREEN** Action button to exit and continue.

4 **Start the keyword search.**

- You can delete or edit keywords using the **RED** and **GREEN** Action buttons.
- When you have set more than two keywords, an **All** subcategory automatically appears which allows you to search for all your keywords.

My TV Area

The My TV Area allows you to set up a personal profile. You can define a profile by channels, themes and/or keywords. As soon as a personal profile has been set, the GUIDE Plus+ system continuously scans the TV listings for the next seven days. Whenever you access the My TV Area, a list of programmes matching your profile appears.

From the My TV Area you can:

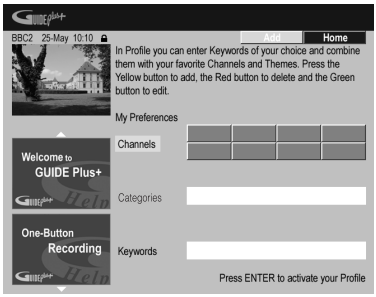
- Set up a profile by channel, theme and/or keyword
- Edit and delete profiles
- Read programme synopses
- Tune to a programme that's currently showing
- Set a programme to record
- Access Information panels

Setting up a profile

You can set up a profile with any combination of up to 16 channels, four categories and 16 keywords.

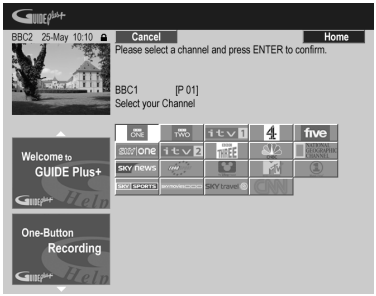
1 Select 'My TV' from the Menu bar.

2 Press the YELLOW Action button to set a profile.



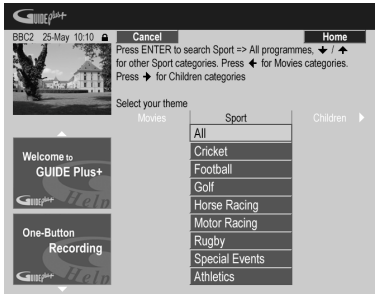
Channels is now highlighted.

3 To add a channel to your profile, press the YELLOW Action button.



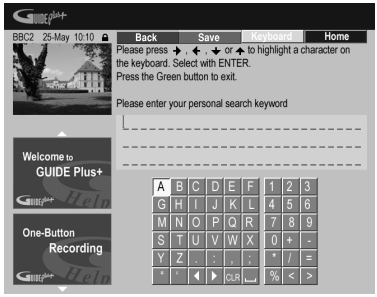
Select a channel from the mosaic of channel icons and press **ENTER**. Repeat this step to add up to 16 channels.

4 To add a category to your profile, highlight 'Categories' and press the YELLOW Action button.



Select a category from the Search Area categories and press **ENTER**. Repeat this step to add up to four categories.

5 To add a keyword to your profile, highlight 'Keywords' and press the YELLOW Action button.



Use the ⬆/⬇/⬅/➡ buttons followed by **ENTER** to select characters from the on-screen keyboard. When you're finished, press the **GREEN** Action button to exit and continue.

6 Press ENTER to activate your profile.

- You can add up to 16 keywords by repeating step **5**.
- You can edit or delete your profile using the **RED** and **GREEN** Action buttons.

The Schedule Area

The Schedule Area is where you can set, see, edit and delete scheduled (timer) recordings.

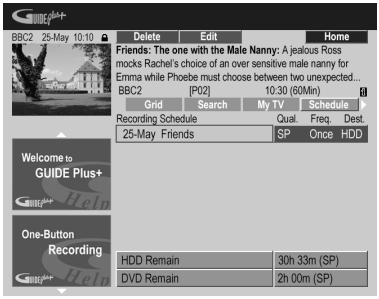
From the Schedule Area you can:

- Edit or delete a One-Button-Recording
- Set, edit or delete a VIDEO Plus+ recording
- Set, edit or delete a manual recording

Editing a scheduled recording

You can edit any parameter in a scheduled recording, or delete it if you no longer require it[1].

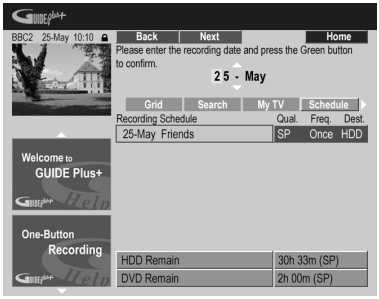
1 Highlight the left tile of a scheduled recording.



- If you only want to edit the recording quality, frequency, destination, timing or genre settings, skip to step **5** below.

2 Press the GREEN Action button (Edit).

3 Use the cursor and number buttons to edit the recording date, start time, end time and channel.



Use the ⬆/⬇ buttons or the number buttons to edit.

Press the **GREEN** Action button to go to continue, or the **RED** Action button to go back.

4 Enter a name for the scheduled recording.

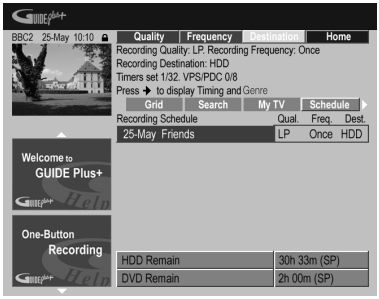


Use the ⬆/⬇/⬅/➡ buttons followed by **ENTER** to select characters from the on-screen keyboard.

After entering the whole name, press the **GREEN** Action button to continue.

5 Highlight the right recording tile.

6 Press the RED Action button (Quality) to change the recording quality.



Select from **AUTO**[2], **XP**, **SP**, **LP**, **EP**, **SLP**, **SEP** or a manual recording mode (see *Manual Recording* on page 142 and *Manual recording modes* on page 151).

Note

1 See *About timer recordings* on page 86 for more information about scheduled recordings.

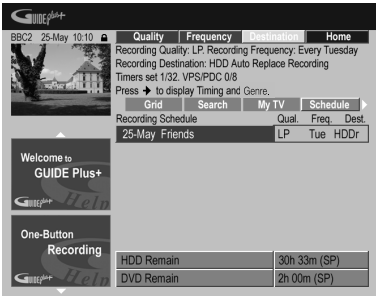
2 This mode maximizes the recording quality to fit on to a single DVD disc. Can also be used when recording to HDD.

7 Press the GREEN Action button (Frequency) to change the recording frequency.



Select from the various options for one-time, daily and weekly recordings.

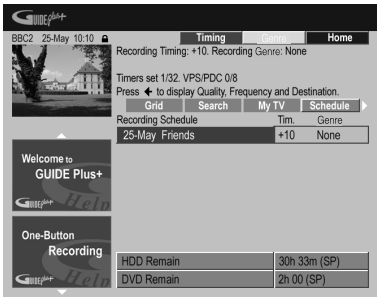
8 Press YELLOW Action button (Destination) to select the recording destination.



Select from **DVD**, **HDD** or **HDDr** (Auto Replace Recording)[1].

- Auto Replace Recording is only available as an option with regular daily or weekly recordings.

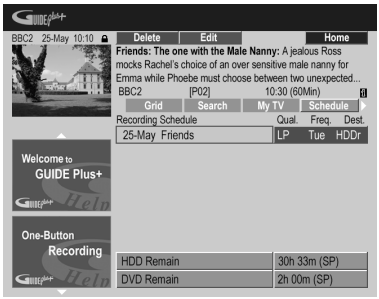
9 Press ➡ to access the extended recording options.



- If you want to record to a particular HDD genre, use the **YELLOW** Action button (**Genre**) to select one.
- Use the **GREEN** Action button (**Timing**) to add extra time to the end of the recording (**+0**, **+10**, **+20**, **+30** or VPS/PDC[2] (**V–P**)).
- Press ⬅ to display the standard recording options again.

Deleting a scheduled recording

1 Highlight the left tile of a scheduled recording.



2 Press the RED Action button (Delete).
The scheduled event is deleted.

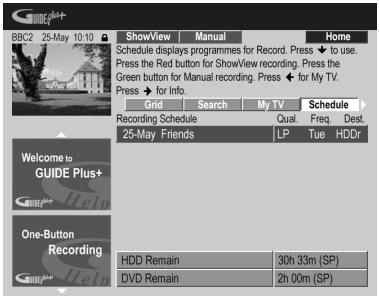
Note

1 • For a DVD timer recording, if **Optimized Rec** (see *Optimized Rec* on page 142) is set to **On** (and VPS/PDC is off), the recorder will adjust the recording quality to try and fit the recording on the disc. If the recording will not fit onto the disc even on **MN1** recording quality (**MN4** for DVD+R/+RW) then the Recovery Recording feature will automatically make the recording to the HDD instead.
• If there is very little free space left on the HDD, an Auto Replace Recording may not complete successfully.
• If the HDD is being used for playback or high-speed copying when an Auto Replace Recording is due to start, the new timer recording will not replace the old one. However, the next time the timer recording starts, both of the older two programmes will be erased.

2 • If you set the timer recording to use VPS/PDC, you must switch the recorder into standby before the timer recording is due to start for it to work correctly. For non-VPS/PDC timer recordings there is no need to switch the recorder into standby.
• Optimized Recording will not work if VPS/PDC is on.
• Up to eight timer recordings can be set with VPS/PDC.
• VPS/PDC cannot be set for recordings made from digital broadcasts or an external input, or when the recording mode is set to **AUTO**.

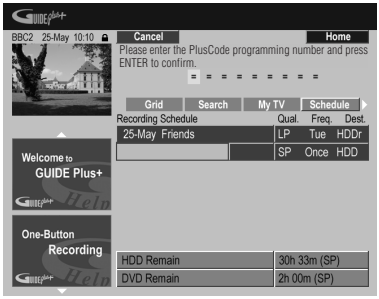
Setting a VIDEO Plus+® recording

1 Select 'Schedule' from the Menu bar.



2 Press the RED Action button (VIDEO Plus+).

3 Use the number buttons to enter a PlusCode programming number.

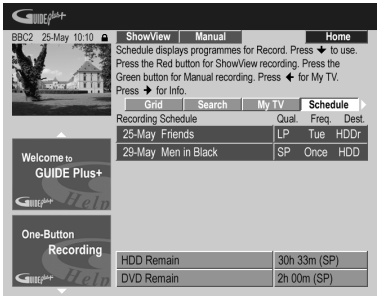


- If you live in an area not yet covered by the GUIDE Plus+ system you may also have to input a channel number. Follow the on-screen display to do this.

4 Press ENTER to confirm.

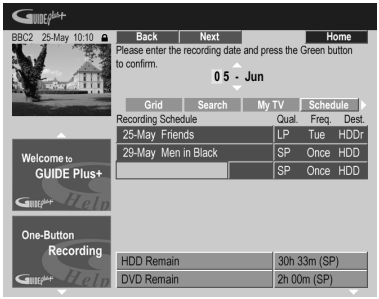
Setting a manual recording

1 Select 'Schedule' from the Menu bar.



2 Press the GREEN Action button (Manual).

3 Use the number and ⬆/⬇/⬅/➡ buttons to enter the recording date, then press the GREEN Action button (Next).



4 In the same way, enter the recording start time, followed by the GREEN Action button (Next) to confirm.

5 Enter the recording end time in the same way, followed by the GREEN Action button (Next) to confirm.

6 Use the number buttons to enter a channel number, then press the GREEN Action button (Next) to confirm.



Alternatively, you can press the **YELLOW** Action button (**Mosaic**) and use the ⬆/⬇/⬅/➡ buttons to select a channel from the mosaic, followed by **ENTER**.

The Info Area

This area is reserved for additional information such as news, weather reports, stock quotes, and so on, and varies by region. (Note that this feature is not available in all countries/regions.)

The Editor Area

The Editor Area is the central location for you to manage your channels. Any changes you make here will affect what is displayed in the Grid Area. The Editor Area is mainly used when setting up the GUIDE Plus+ system to make any manual changes as necessary.

You can also use the Editor Area if new channels become available in your area, or if you change from cable to satellite, say, or move house.

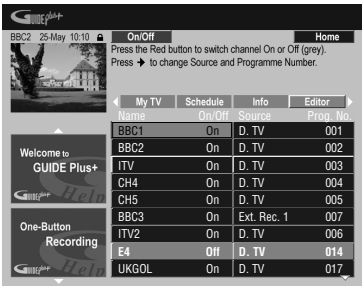
From the Editor Area you can:

- Display/hide channels in the grid (switch the channel on/off)
- Select a channel source (**A.TV**, **D.TV**, **Ext. Rec. 1**, **Ext. Rec. 2**, etc.)
- Enter a channel programme number

Switching a channel on/off

You can choose whether or not to display a channel in the Grid Area by switching the channel on or off in the Editor Area.

1 Select 'Editor' from the Menu bar.

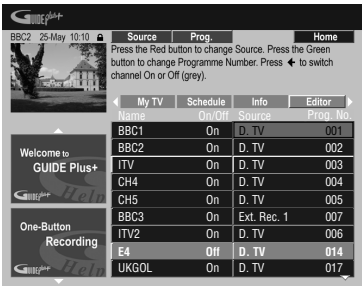


2 Highlight the left channel tile of the channel you want to switch on or off.

3 Press the RED Action button to switch the channel on or off.

Changing the source and programme number

1 Select 'Editor' from the Menu bar.



2 Highlight the right channel tile of the channel you want to make a change to.

3 Press the RED Action button to change the channel source, or the GREEN Action button to enter a programme number.

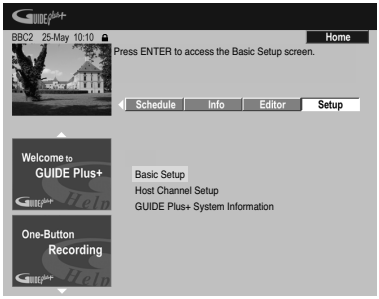
Each press of the **RED** Action button changes the channel source (**A.TV**, **D.TV**, **Ext. Rec. 1**, etc.). To set a programme number, use the number buttons to enter a programme number then press **ENTER** (When set to **A.TV** or **D.TV**, make sure that the programme number matches the preset number of this recorder for what you want to record).

The Setup Area

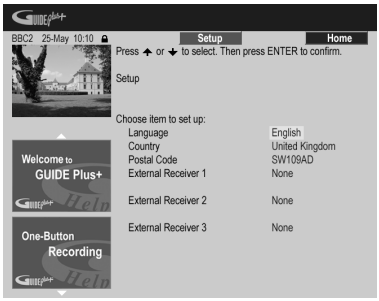
The Setup Area is where you can set up the GUIDE Plus+ system for your particular region, TV reception conditions, and so on.

Making changes to your GUIDE Plus+ setup

1 Select 'Setup' from the Menu bar.



2 Highlight the part you want to change.



You can change the Language, Country, Postal Code[1] and the External Receiver settings.

3 Press ENTER to confirm.

Manual Host Channel setup

The GUIDE Plus+ system will automatically identify your Host Channel as soon as the recorder is put into standby for the first time. See the table on page 60 for a list of all the European Host Channels.

If you know your Host Channel details (source and programme number) or if the automatic identification did not provide the expected result, you can identify your Host Channel manually. Select **Host Channel Setup** in the Setup area and follow the instructions on the TV. Select the correct source (e.g., internal tuner or external receiver) and enter the respective programme number (e.g., if you have to press **9** on the remote to watch your Host Channel, enter 9 as the programme number). When you next switch the recorder into standby the GUIDE Plus+ system will complete the Host Channel setup.

You can reset the Host Channel settings at any time back to the default setting of automatic. Please be aware that resetting the Host Channel will erase all TV listings data.

GUIDE Plus+ FAQ and troubleshooting

This FAQ covers only a few questions. For a complete list please consult the GUIDE Plus+ website at: www.europe.guideplus.com

FAQ

- *When I tried setting up my external receiver I could not get any of the attempts to work, what should I do?*

 There could be several reasons why your external receiver could not be controlled.

 – The connections could be wrong. Make sure that the G-LINK cable is connected to the G-LINK connector on the recorder and the IR blaster is in front of the external receiver, pointing towards the IR receiver of your external receiver. See *Connecting to a cable box or satellite receiver* on page 51.

 – The code that is listed under your brand could be wrong. Please try other codes for your brand under satellite, cable or terrestrial. Go to the Setup Area and choose one of the three options (cable, satellite or terrestrial) that you have not already tried. Follow the on-screen prompts to make sure that the GUIDE Plus+ system can change channels on your external receiver. If it does not work, repeat the process, choosing different reception and external receiver combinations until you have tried all the codes for your brand of receiver that are already in the GUIDE Plus+ system. If it still does not work, see below on how to receive new codes overnight.

 – The unit has not yet received new codes. The nightly data downloads frequently include new codes for controlling external receivers. Please tune your external receiver to your local host channel and leave it on overnight. Switch this recorder into standby. The next morning, please perform the GUIDE Plus+ setup again to see if your external receiver can now be controlled.

 – The external receiver that you use is currently not supported. If, after leaving your external receiver on overnight, and doing the Reception and External Receiver Setup again, it still does not respond, please call Customer Support to report your brand and model.

Note

1 Making changes to the Country or Postal Code settings may require a new download of TV listings information. This can take up to 24 hours.

- *My external receiver was successfully setup. However I have found that when the GUIDE Plus+ system has to change to a channel with a three-digit programme number in the external receiver's preset, it does not work. It looks like the GUIDE Plus+ system can only send two digits.*

 With the number of channels increasing, the number of digits has increased as well. While older boxes use only two digits, newer boxes require up to four. It is possible that you selected an older code for your brand during set-up. Please access the Setup Area, select External Receiver and repeat the setup for your brand (Note: Every time you see the on-screen question about whether the receiver has changed to a certain channel, the GUIDE Plus+ system has sent a different code). Try all the different codes until your GUIDE Plus+ system can control your external receiver correctly. If you have no success, try to receive new codes overnight.
- *I used to receive data through my terrestrial antenna or analog cable without a set-top box. Now, I have "upgraded" to a satellite system or to digital cable with external receiver. What should I do to receive data for the GUIDE Plus+ system?*

 You can try to receive your host channel through your new reception method. If you have problems to receive data we recommend that you keep your analog terrestrial or cable connection only to receive data this way. It is important that you identify your host channel correctly in the Editor Area.
- *After I performed the initial set-up I found that the line-up for all the channels received via the external set top box is incorrect. How do I correct this?*

 You can change the line-up in the editor according to your preferences. Access the Editor Area. Select the channels that you would like to change. Change the source and preset number according to your preferences.
- *I performed the set-up but after many hours I still have a blank EPG what is going wrong?*

 There are several possibilities:

 – Connections are wrong. See *Connections* on page 48 to double check everything.

 – The initial setup of GUIDE Plus+ was completed incorrectly. Try setting it up again (see *Setting up the GUIDE Plus+® system* on page 59).

 – Your cabling and setup is OK, but the recorder has not been connected for enough time to receive the TV listings data. Leave the recorder in standby overnight.

 – For external receiver users only: The connections and setup are OK, but the external receiver was not tuned to the correct host channel. Check the list of host channels (see step 5 of *Setting up the GUIDE Plus+® system* on page 59) and leave the recorder in standby and the external receiver on overnight tuned to the correct host channel.

 – You live in a country/region where the GUIDE Plus+ system is not yet available. Check the list of countries to see if you are in a region that is supported.
- *I used the One-Button-Record feature (red Action button) to set a recording, but I recorded the wrong channel.*

 If the channel to be recorded is received via the external receiver first make sure that the external receiver was left switched on. Next, in the Editor Area, make sure that the channel to be recorded is correctly set: Access the Editor Area. Check the source and programme number of the channel that you wanted to record. Change the source and preset numbers if incorrect.

 If you are recording from the recorder's internal tuner (the **A.TV** or **D.TV** setting), make sure that the programme number is the same as the preset number set on this recorder. If they are different, go to the Editor Area and change the programme number to match the recorder's preset number.
- *The TV listings information doesn't update.*

 The latest TV listings information is automatically downloaded by the recorder overnight. This only happens if the recorder is in standby; if the recorder is left on, it will not download. When not using the recorder, please switch it into standby.

 Data downloads can take several hours. The front panel display shows **EPG** when downloading. If you switch the recorder on while **EPG** is displayed, the download will be cancelled.
- *The GUIDE Plus+ system is not supported in my area, but when I switch the recorder into standby, after a while the front panel display shows* **EPG**. *Can I stop this from happening?*

 If the GUIDE Plus+ system is not supported in your area, please do not set the postal code in the GUIDE Plus+ setup (see *Setting up the GUIDE Plus+® system* on page 59). When the GUIDE Plus+ service starts in your area, please set the postal code again.
- *The automatic Host Channel search failed or the GUIDE Plus+ system identified the wrong Host Channel for my region.*

 You can identify your Host Channel manually. See *Manual Host Channel setup* on page 71 for how to do this.

Chapter 5

Using the digital electronic programme guide

This chapter is only applicable if the EPG Type Select setting made in the Setup Navigator (or the Initial Setup menu) is set to **Digital EPG**.

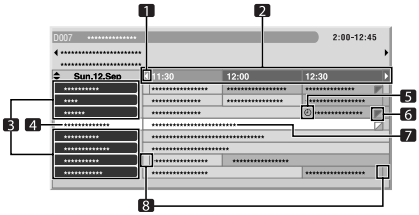
The Digital EPG system

The Digital EPG shows a table of scheduled digital TV programmes and detailed information about individual programmes. It also allows you easily to select and tune to a particular programme.[1]

The Digital EPG screen consists of programme Information, Channel List and General Programme List. This section describes information displayed in the schedule and information windows.

Note that the recorder's clock must be set to the correct time and date to ensure all relevant EPG information is displayed.

General Programme List



1 Appears when the schedule table can be scrolled forward or backward

2 Time schedule

3 Channel list

4 Highlights the currently selected channel

5 Indicates the programme set for recording

6 Appears when other programmes (often short ones) have been scheduled for the same period

7 Programme title

8 Time dividers

- The general programme list may show sections whose bottom right corners have been folded. This indicates that other programmes have been scheduled for that period. To view the title of such a programme and related information, highlight a folded section, and then press ⬅/➡.

Programme information



1 Channel number

2 Station name

3 Programme title

4 Appear when other programmes have been scheduled for the same period

5 Programme schedule

6 Programme genre

Note

1 EPG information is only viewable for D.TV programmes that provide EPG information.

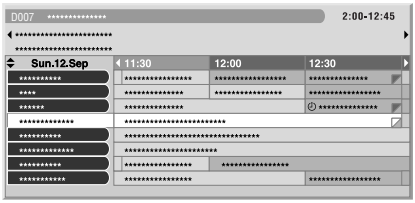
Using the Digital EPG

Using the Digital EPG you can check the schedule of digital TV programmes, view information about desired programmes, and/or select programmes.

1 GUIDE **Press to display the Digital EPG screen.**

The EPG screen updates automatically if the EPG data is acquired successfully. If not, the Digital EPG screen shows a blank image.

2 **Select a TV programme.**



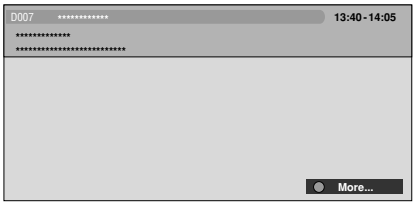
- Press ⏮ **PREV/**⏭ **NEXT** to skip to the next or previous channel list page.
- Information about the selected programme appears in the information window.[1]
- To watch a programme currently on air, select the programme (then press **ENTER**).
- You can check information about programmes scheduled up to one week ahead, depending on conditions.
- Depending on conditions, it may take some time to acquire EPG data.

3 INFO **Press to view more information about the selected programme.**

Detailed information appears in the schedule window.

If the screen contains further information, **More ...** is displayed.

- To quit the display of detailed information, press **INFO** again (or **RETURN/EXIT**).



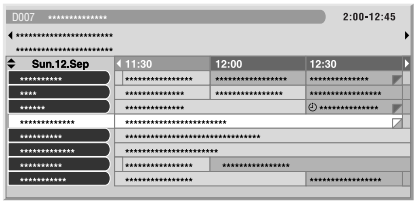
4 GUIDE **Press to exit the Digital EPG screen.**

Setting timer programmes

Using the Digital EPG, it's easy to set digital TV programmes for recording[2].

1 GUIDE **Press to display the Digital EPG screen.**

2 **Select a programme.**



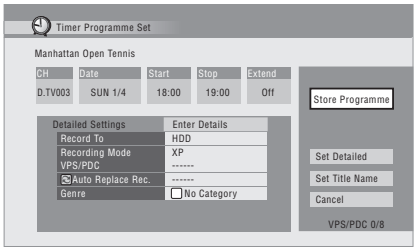
- Select a programme currently on-air: press **ENTER** to close the Digital EPG screen and watch the channel immediately, or press **RED** to set the programme for recording immediately.
- Select a programme not yet started then press **ENTER** or **RED** to set the programme for recording.

Note

1 The general programme list does not show programmes that have already finished.

2 For more information on timer programmes, see *About timer recordings* on page 86.

3 Enter the timer recording settings.
Use the ⬅/➡ buttons to select a field; use the ⬆/⬇ buttons to change the value[1].



- **CH** – Choose a channel (Pr 1 to Pr 99 for analog channels and available digital channels (excluding skip channels)), or one of the external inputs from which to record.
- **Date** – Choose a date up to one month in advance, or select a daily or weekly programme.
- **Start** – Set the recording start time.
- **Stop** – Set the recording end time (maximum length of a timer recording is 24 hours).
- **Extend** – Extend the end time of the timer recording (select **Off**, **10**, **20** or **30** mins.)

4 If you want to change the recording mode, recording destination, etc., select 'Set Detailed'.
In this area you can set:

Record to – Select **HDD** for hard disk recording or **DVD** for DVD recording[2].

Recording Mode – Select from **AUTO**[3], **XP**, **SP**, **LP**, **EP**, **SLP**, **SEP** (See *Setting the picture quality/recording time* on page 83). If Manual Recording is on, then you can also select the **LPCM** setting, **XP+** or **MN** (press **ENTER** then use the ⬅/➡ buttons to select the level).

VPS/PDC[4] – Choose whether or not to use VPS/PDC when making timer recordings of analog programmes (see *About timer recordings* on page 86).

Auto Replace Rec. – Automatically erases the previous daily or weekly recording when the next one is recorded.

Genre – Select a record genre (for HDD recording only).

EPG Link[5] *(UK only)* – Choose whether or not to have this device automatically record scheduled programmes from the Digital EPG even if the times in which they are broadcast change.

Series Recording[6] *(UK only)* – Choose whether or not to record all programmes from a series when you make a recording from the Digital EPG (for HDD recordings only).

5 After entering all the timer recording information, highlight 'Store Programme' and press ENTER.
A red clock icon appears for the programme.

6 GUIDE Press to exit the Digital EPG screen.

Tip

- To enter a title name for the timer recording in advance, select **Set Title Name** and follow the on-screen display.

Note

1 You cannot change the **CH**, **Date**, **Start**, **Stop**, **Extend** and title name when you have **EPG Link** set to **On** (see below).
2 • For a DVD timer recording, if **Optimized Rec** (see *Optimized Rec* on page 142) is set to **On** (and VPS/PDC is off), the recorder will adjust the recording quality to try and fit the recording on the disc. If the recording will not fit onto the disc even on **MN1** recording quality (**MN4** for DVD+R/+RW) then the Recovery Recording feature will automatically make the recording to the HDD instead.
• If there is very little free space left on the HDD, an Auto Replace Recording may not complete successfully.
• If the HDD is being used for playback or high-speed copying when an Auto Replace Recording is due to start, the new timer recording will not replace the old one. However, the next time the timer recording starts, both of the older two programmes will be erased.
3 This mode maximizes the recording quality to fit on to a single DVD disc. Can also be used when recording to HDD.
4 • If you set the timer recording to use VPS/PDC, you must switch the recorder into standby before the timer recording is due to start for it to work correctly. For non-VPS/PDC timer recordings there is no need to switch the recorder into standby.
• Optimized Recording will not work if VPS/PDC is on.
• Up to eight timer recordings can be set with VPS/PDC.
• VPS/PDC cannot be set for recordings made from digital broadcasts or an external input, or when the recording mode is set to **AUTO**.
5 • You cannot set an **EPG Link** when recording mode is set to **AUTO**.
• You cannot change the **CH**, **Date**, **Start**, **Stop**, **Extend** and title name when you have **EPG Link** set to **On**.
• When you have **EPG Link** set to **On** and you set a timer recording for a programme that is divided into multiple parts, all parts of that programme are recorded automatically. In the programme list, the earliest part of the programme to be recorded has a red 🕘 icon, with successive parts indicated by a gray 🕘 icon. Data provided by the broadcaster determines which programmes are classified as divided programmes.
6 • In the programme list, the earliest programme to be recorded has a red 🕘 icon, with successive programmes indicated by a gray 🕘 icon.
• There is a limit to the number of programmes you can schedule to record with the **Series Recording** function.
• Data provided by the broadcaster determines which programmes are classified as part of a series.

Editing a timer programme

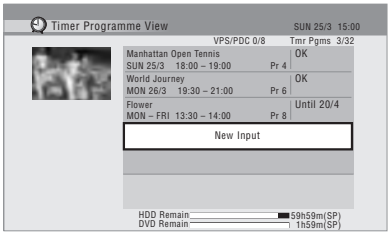
You can change any of the settings in a timer programme before the recording is due to start. Even if a programme is currently being recorded, you can program a new end time or edit its extend time parameter.

TIMER REC

1 Press to display the Timer Programme View screen.

You can also access the Timer Programme View screen from the Home Menu (press **HOME MENU**, select **Timer Recording**, then **Timer Recording**).

This screen shows all the timer programmes currently set.



- Each row is for one timer recording programme, with the date and time information, channel, recording mode, DVD or HDD and recording status.
- The amount of free space available on the HDD and the currently loaded recordable DVD is shown towards the bottom of the screen.
- In the upper-right corner, the number of timer programmes already set is shown next to **Tmr Pgms**.
- If there are more than five timer programmes already set, press ►►I **NEXT** to switch page (go back using the I◄◄ **PREV** button).
- You can also delete a timer programme before it's started (before the recorder enters timer recording standby) by highlighting it and pressing **CLEAR**. See also *Deleting a timer programme* on page 77.

2 Highlight the timer programme you want to change.

If you want to set a new timer programme, select **'New Input'** and skip to step **4**.

3 Press ➡ then select 'Modify' from the command menu panel.

Alternatively, press **ENTER**.

The Timer Programme Set screen appears from which you can edit the settings.

4 Enter the timer recording settings.

Use the ⬅/➡ buttons to select a field; use the ⬆/⬇ buttons to change the value. For more information on the options available at the Timer Programme Set screen, See *Setting timer programmes* on page 74.

5 After entering all the timer recording information, highlight 'Store Programme' and press ENTER.

The timer recording list screen is displayed again. The timer programme you just input appears in the list. The rightmost column shows various timer recording status messages:

- **OK** – Can be recorded.
- **Time Over** – Not enough space on the HDD (the recording won't finish).
- **Over 12h** – Recording time of over 12 hours set (when recording to the HDD the recording will be split into two titles).
- **Overlap** – Two timer programmes partially or completely overlap. The one starting earlier will take priority.
- **Until** ... (eg., **Until 13/8**) – For a regular recording, the last programme that could be recorded is shown.
- **Data Over** – Can't record because the disc management area of the disc is full.
- **Cancel Once** – A regular timer programme is set to skip.
- **Can't Rec** – Not possible to record.
- **Title Over** – Can't record because there is already the maximum number of titles on the disc (HDD: 999; DVD: 99).
- **Recording** – The programme is currently recording.
- **Standby** – The recorder is in timer recording standby.
- Valid Until ... (eg., Valid **Until 13/8**) *(UK only)* – When you have set to make a series recording of a programme that has no new scheduled broadcasts, the date displayed indicates the last day until which the scheduled programme settings remain valid. (If the programme is not broadcast for over 13 weeks, its settings are automatically deleted.)
- No Broadcast *(UK only)* – Displays when a programme for which you had the **EPG Link** set to **On** does not record because the date of the scheduled recording has already passed.
- *nothing displayed* – Another timer recording or copying is in progress.

6 HOME MENU Press to exit the timer recording screen.

Note

- If you set a DVD timer recording but there is no recordable DVD disc loaded, or the disc loaded doesn't have enough free space for the complete recording, **Recovery** is shown. In this case (unless you load a suitable disc before the recording actually starts), the recorder will use the HDD for recording. (The message **Can't Rec** will appear if there are already 999 titles on the HDD or if there is not enough free space on the HDD for recording.)
- When you have **EPG Link** or **Series Recording** set to **On**, any changes in broadcast time or division of broadcasts are automatically accommodated for and your scheduled recordings are carried out without any additional settings. As a result, even when you have not scheduled programmes to record at the same time, changes in broadcasting schedules can cause scheduled recordings to overlap.

Deleting a timer programme

You can delete timer programmes you no longer need.



1 Press TIMER REC.



2 Highlight the timer programme you want to erase.



3 Press ➡ then select 'Erase' from the command menu panel.

- Select **Yes** to confirm or **No** to cancel.
- You can also just press **CLEAR** when the timer programme is highlighted.

Skipping a regular timer programme

If you've set a regular daily or weekly timer programme, you can set the recorder to skip the next scheduled recording.



1 Press TIMER REC.



2 Highlight the timer programme you want to skip.



3 Press ➡ then select 'Cancel Once' from the command menu panel.

- In the timer programme list, **Cancel Once** appears by the programme.
- You can also just press **II PAUSE** when the timer programme is highlighted.

Checking for alternative broadcast times

(UK only)

You can check to see if a programme you have scheduled to record is airing at an alternative time slot[1].



1 Press TIMER REC.



2 Highlight the timer programme you want to search.



3 Press ➡ then select 'Alternate Search' from the command menu panel.

- The search results are displayed. Choose the programme you would like to record and press either the **RED** button or **ENTER** to schedule a recording.

Searching for series

(UK only)

You can search for broadcasts of programmes of the same series as a programme you have scheduled to record[1].



1 Press TIMER REC.



2 Highlight the timer programme you want to search.



3 Press ➡ then select 'Series Search' from the command menu panel.

- The search results are displayed. Choose the programme you would like to record and press either the **RED** button or **ENTER** to schedule a recording.

Note

1 • Programme search results are based upon data provided by the broadcaster.
• This function may not be applicable to all programmes.

Searching for recommendations

(UK only)

You can search for recommended programmes generated from the content of the programmes you have scheduled to record[1].



1 Press TIMER REC.



2 Highlight the timer programme you want to search.



3 Press ➡ then select 'Recommendation Search' from the command menu panel.

The search results are displayed. Choose the programme you would like to record and press either the **RED** button or **ENTER** to schedule a recording.

Other useful EPG functions

EPG Jump

1 Press GREEN when the Digital EPG screen (Programme List, Detailed information or Search Result) is displayed.



2 In the 'Date' field select a date (within one week) to jump to.





3 In the 'Time' field select a time of the day (0:00 to 23:00) to jump to.



4 Select 'Jump'.

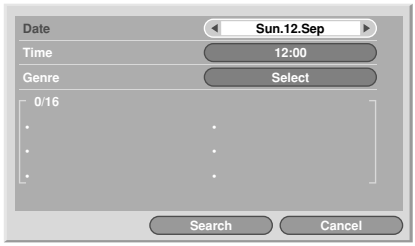
The Programme List for the specified day and time is displayed.

EPG Search

1 Press YELLOW when the EPG screen (Programme List, Detailed information or Search Result) is displayed.



2 In the 'Date' field select a date (within one week) to search in.





3 In the 'Time' field select the time of day (0:00 to 23:00) to search in.



4 In the 'Genre' field, select the genre to search for.

You can search for multiple genres by pressing **ENTER** after each genre.



5 Select 'OK'.



6 Select 'Search'.

The results of your search are displayed.

Note

1 • Programme search results are based upon data provided by the broadcaster.
• This function may not be applicable to all programmes.

Chapter 6
Recording

About DVD recording

This recorder can record to DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM, DVD-R DL and DVD+R DL media.

DVD-R and DVD-RW discs can be initialized for *Video mode* or *VR mode* recording. Each has its advantages, and it depends on what you want to do with the recording which mode you choose.

If you want to edit your recordings in any significant way, VR mode offers greater possibilities for cutting, copying, and changing the way the video is presented.

Video mode is less flexible when it comes to editing, but it has the advantage that it is compatible with standard DVD players (many of which won't play VR mode discs[1]).

Once a disc is initialized for a particular mode, all recording on that disc will be in that mode.

DVD+RW discs can be initialized for *+VR mode* recording.

DVD-RAM discs can be initialized for VR mode recording.

DVD+R discs do not require initializing.

Important

- The table below shows the maximum number of titles recordable per disc and the maximum number of chapters per title:

Disc type/rec. format	Max. titles (per disc)	Max. chapters (per title)
DVD-R/-RW Video mode	99	99
DVD-R/-RW/-RAM VR mode	99	999*1
DVD+R/+RW	49	99*2

*1 *A maximum of 999 chapters are recordable per disc.*

*2 *A maximum of 254 chapters are recordable per disc.*

- This recorder cannot play or record unfinalized DVD -R/-RW (Video mode) and DVD+R discs recorded on another recorder. DVD+RW discs recorded on another recorder are playable on this recorder but are not recordable.
- The maximum continuous recording time for one title is eight hours when using a DVD+R/+RW disc.
- If you delete a title from a DVD+R/+RW disc, the total number of recordable titles remaining may not increase.
- Although this recorder can record PAL, SECAM, NTSC and PAL-60, you can't mix multiple TV line systems on one disc. A disc can contain PAL and SECAM recordings, or NTSC and PAL-60. See also *Additional information about the TV system settings* on page 146.
- Fingerprints, dirt and small scratches on a disc can affect playback and/or recording performance. Please take proper care of your discs.
- Pioneer takes no responsibility for recording failure due to power cuts, defective discs, or damage to the recorder.
- See also *Disc/content format playback compatibility* on page 43 for detailed disc compatibility information.

Recording to DVD-R DL/DVD+R DL discs

Recording to DVD-R DL/DVD+R DL discs is generally the same as recording to regular single-layer discs; however, please note the following points:

- When the recorder switches from the first layer to the second during recording a DVD-R DL (Video mode) disc, a new title is automatically started on the new layer.
- Up to 99 titles can be recorded on a DVD-R DL (Video mode) disc. If the 99th title is being recorded when the layer is switched, recording will stop.
- Up to 49 titles can be recorded on a DVD+R DL disc.
- You cannot play, record additional material to, edit or finalize a DVD-R DL or DVD+R DL disc that has been recorded on but not yet finalized on another DVD recorder.

Note

1 Some DVD players, such as some Pioneer models, are compatible with VR mode discs. Check the operating instructions for your player for VR mode compatibility information.

About HDD recording

Recording to the hard disk drive (HDD) is very flexible; you have the full choice of recording quality options, including manual mode, and of course you can record, erase and re-record as many times as you like.

The capacity of the hard disk drive means that you can store many hours of video on it, even using the higher quality recording modes.

Important

- The maximum number of titles/chapters per title that can be recorded on the HDD is 999 and 99 respectively. No more recording is possible on the HDD after the maximum number of titles has been reached.
- The maximum continuous recording time for one title is 12 hours.
- It is possible to record both PAL and NTSC titles on the HDD. Before recording, you need to make sure that the Input Line System setting (page 146) matches the TV line system of the source you're recording.

HDD Video mode compatibility

When recording to the HDD you can choose to record in one of two formats. Set the format from the HDD Recording Format item in the Initial Setup menu (see *page 143*).

When set to Video Mode On, high-speed copying from HDD to DVD-R/-RW (Video mode) or DVD+R/+RW is possible. When recording a bilingual broadcast, set which channel you want to record from the Initial Setup menu (see *Bilingual Recording* on page 140).

When HDD Recording Format is set to Video Mode Off, high-speed copying from HDD to DVD-R/-RW (Video mode) or DVD+R/+RW isn't possible. However, both channels of bilingual broadcasts are recorded and you can switch the audio on playback.

Recorded audio

In all except the **LPCM** mode, sound is recorded in two channel Dolby Digital format *(only Dolby Digital 2.0 can be recorded; Dolby Digital 5.1 recording is not possible)*. When set to **LPCM**, sound is recorded in high quality, uncompressed Linear PCM format.

If the broadcast audio is bilingual and you are recording to DVD-R/-RW (Video mode), DVD+R/+RW, or to the HDD with the HDD Recording Format set to Video Mode On, or on the **LPCM** setting, use the Bilingual Recording setting (page 140) to select the **A/L** or **B/R** audio channel to record before recording starts. In other cases, both channels of a bilingual broadcast will be recorded and you can switch on playback.

Restrictions on video recording

You cannot record copy-protected video using this recorder. Copy-protected video includes DVD-Video discs and some satellite broadcasts. If copy-protected material is encountered during a recording, recording will pause automatically and an error message will be displayed on-screen.

Video that is 'copy-once only' can only be recorded to DVD-RAM or HDD, CPRM-compatible VR mode DVD-R/-RW (see below).

When recording a TV broadcast or through an external input, you can display copy control information on screen (see *Displaying disc information on-screen* on page 99).

CPRM

CPRM is a copy protection/scrambling system developed for the recording of 'copy once' broadcast programmes. CPRM stands for *Content Protection for Recordable Media*.

This recorder is CPRM compatible, which means that you can record copy-once broadcast programmes, but you cannot then make a copy of those recordings. CPRM recordings can only be made on CPRM-compatible DVD-R (ver. 2.0/8x or higher) or DVD-RW (ver. 1.1 or higher) discs formatted in VR mode, DVD-RAM discs or on the HDD.

DVD CPRM recordings can only be played on players that are specifically compatible with CPRM.

Recording equipment and copyright

Recording equipment should be used only for lawful copying. You are advised to check carefully what constitutes lawful copying in the country in which you are making a copy. Copying of copyrighted material such as films or music is unlawful unless permitted by a legal exception or consented to by the rightowners.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Using the built-in A.TV and D.TV tuners

Switching between A.TV and D.TV tuners

A.TV/D.TV

• **Press to switch between D.TV (digital) and A.TV (analog).**

Changing channels

There are a number of ways to select analog and digital TV channels.[1] Note that you can't change the TV channel during playback, recording or during recording standby.

• **Smart Jog**

• **Number buttons**

For example, to select channel 4 (digital channel D004), press **4** then **ENTER**; for channel 34 (digital channel D034), press **3**, **4**, **ENTER**.[2]

• **CH +/– buttons** on the front panel.

• For D.TV channels only, you can also use the Channel List — see below.

Tip

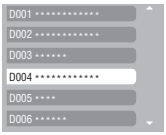
• When changing terrestrial digital broadcast channels, channels with a low signal strength may result in a black screen being displayed.

• For other channels, it may take a short while for the channel picture to appear, and/or for the channel number to appear.

• In both of the above cases, some improvement may be possible by adjusting the antenna.

Using the D.TV Channel List

When in D.TV mode, you can call up the on-screen Channel List anytime by pressing **ENTER**. Use the ⬆/⬇ buttons to select a channel, then press **ENTER** to switch to that channel.[3]



Displaying a channel banner

A channel banner shows programme titles, start and end times of the current programme and other channel information. The information is updated every minute.

INFO

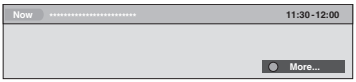
• **Press to display the channel banner for the current channel.**



• Use the ⬅/➡ buttons to display the channel banner for other channels. To switch to the displayed banner's channel, press **ENTER**.

• The channel banner displays the Subtitles (💬) and Teletext/MHEG (📺) icon if they apply to the selected channel.[4]

• To see more detailed channel information, press **INFO** again.[5]



Use the ⬆/⬇ buttons to display information about previous and following programmes. Use the ⬅/➡ buttons to see information about other channels.

• If there is still more information to be displayed, **More ...** is displayed; press the **BLUE** button to see the extra information.

• To hide the channel banner, press **RETURN/EXIT**.

Note

1 • If you select a locked channel, you will need to enter your password to access it.
• While listening to D.TV radio channels, the screen saver automatically starts after no button has been pressed for three minutes.
2 Analog channel presets are numbered 1 to 99; digital channel presets are numbered D001 to D999.
3 • If you select a locked channel, you will need to enter your password to access it.
• While listening to D.TV radio channels, the screen saver automatically starts after no button has been pressed for three minutes.
4 Due to inaccurate information provided by the broadcaster, some icons may occasionally be present or absent in error.
5 Not all channels supply more detailed information.

Changing D.TV audio languages

- MAIN / SUB + AUDIO **Press to display the current audio language. Press repeatedly to change it to other available languages.**

Changing D.TV subtitle languages

- MAIN / SUB + SUBTITLE **Press to display the current subtitle language. Press repeatedly to change it to other available languages.**

Using the MHEG application

(UK only)

Some stations bring you programmes with the MHEG (Multimedia and Hypermedia Expert Group) application encoded, letting you experience D.TV interactively.[1]

The channel banner displays an icon (▤) to indicate that the MHEG application can be run.

- MAIN / SUB + TEXT **Press to start the MHEG application.**[2]
 - You can also use any of the colour buttons.
 - Press **TEXT** to quit the MHEG application.

Viewing Teletext

(European countries except the UK.)

You can view the Teletext that comes simultaneously with certain programmes.

- MAIN / SUB + TEXT **Press to display the Teletext.**
 - You can also use any of the colour buttons.
 - Press the **TEXT** button again to hide the Teletext screen.

Changing A.TV audio channels

You can change the audio channel of the broadcast or external input signal.

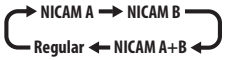
- MAIN / SUB + AUDIO **Press to change the audio type.**

The current audio channel is displayed on-screen.

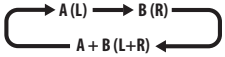
- If the NICAM audio setting (see *NICAM Select* on page 140) is set to **NICAM** and you are watching a NICAM broadcast, you can switch between **NICAM** and **Regular** (non-NICAM) audio.



- If the NICAM broadcast is bilingual, you can also select the language.



- You can also select the language for a non-NICAM bilingual broadcast.



- When watching a recording made from an external input with **Bilingual** recording selected (see *External Audio* on page 140), you can switch the audio channel between left (**L**), right (**R**) or both (**L+R**).



Note

- When recording to the HDD with HDD Recording Format set to Video Mode On, to DVD-R/-RW (Video mode), to DVD+R/+RW, or on the **LPCM** setting, only one channel of a bilingual broadcast is recorded. In this case, decide which language you want to record before recording by setting the Bilingual Recording setting (see *Bilingual Recording* on page 140).

Switching between TV and DVD

When the recorder is stopped or recording you can choose whether to have the audio/video from the built-in TV tuner (or external input) play on your TV ('DVD mode'), or watch the channel that the TV is currently set to ('TV mode').

During playback or when a menu is being displayed on-screen, the sound and video is always routed to your TV and is unaffected by the **TV/DVD** mode setting.

Note that the recorder must be connected to your TV using a SCART cable to be able to use this feature.

- MAIN / SUB + TV/DVD **Switch between TV mode and DVD mode.**

Note

1 If you start recording while the MHEG application is running, the MHEG application screen will also be recorded. To avoid this, quit the application first, then start recording. It is not possible to start the MHEG application while recording is in progress.

2 This function is not available when subtitle display is active.

Setting the picture quality/recording time

DVD (VR) DVD (Video) DVD+R DVD+RW DVD-RAM HDD

Before starting a recording, you will usually want to set the picture quality/recording time. There are six standard settings available, which allow you to choose a balance between picture quality and recording time.

When Manual Recording is set to On (see *Manual Recording* on page 142), a further option will be available (**MN1** to **MN32**, **LPCM**, or **XP+** (a super-high quality HDD recording mode that features a transfer rate of around 15 Mbps) depending on what you set).

When recording to DVD, **MN32** is the highest recording quality available. If you select **XP+**, the recording mode will automatically revert to **MN32**.

When recording to DVD+R/+RW, **SLP** is the longest recording time available. If you select **SEP** or **MN1** to **MN3**, the recording mode will automatically revert to **SLP**.

REC MODE

• **Press repeatedly to select the recording quality.**

- **XP** – High quality setting, gives about one hour of recording time on a DVD disc.
- **SP** (Standard Play) – Default quality, used for most applications, gives about two hours of recording time on a DVD.
- **LP** (Long Play) – Lower video quality than SP, but doubles the recording time on a DVD to about four hours.
- **EP** (Extended Play) – Lower quality than LP, but gives about six hours of recording time on a DVD disc.
- **SLP** (Super Long Play) – Lower quality than EP, but gives about eight hours of recording time on a DVD disc.
- **SEP** (Super Extended Play) – Lowest video quality but gives about ten hours of recording time on a DVD disc.
- **MN1** to **MN32**/**LPCM**[1]/**XP+**[2] – Manual/Linear PCM/XP+ (available only when manual recording is on).

The setting is indicated in the front panel display, and shown on-screen together with the recording time for a blank recordable disc. If a recordable disc is loaded, the approximate remaining recording time for that disc is also shown. (Note that if the On Screen Display setting (see *On Screen Display* on page 144) is **Off** then this information is not displayed.)

Basic recording from the TV

DVD (VR) DVD (Video) DVD+R DVD+RW DVD-RAM HDD

Basic recording from the TV involves just setting the channel to record, choosing whether to record to the HDD or a DVD and selecting the recording quality.

HDD/DVD

1 Select the HDD or DVD for recording.

- If you're recording to DVD, load a recordable disc (if you load a new blank DVD-RW or DVD+RW disc, the recorder takes a short while to initialize the disc).
- If you want to record a VR mode DVD-R or a Video mode DVD-RW, you must initialize it before proceeding (see *Initializing recordable DVD discs* on page 89).

A.TV/D.TV

2 Press to switch between D.TV (digital) and A.TV (analog).

CHANNEL

3 Select a TV channel to record.

The front panel display shows the channel number, or channel name if it's available:



A.TV Channel preset

- While the recorder is stopped, you can also use the number buttons on the remote to select the channel (For channel 24, press **2**, **4** then **ENTER**).
- If the recorder is stopped, you can also use the **CH +/–** buttons on the front panel to select the channel number.

REC MODE

4 Set the picture quality/recording time.

- See *Setting the picture quality/recording time* above for detailed instructions.

Note

1 Audio is recorded in 16-bit Linear PCM format, video is recorded at **XP** quality. When recording a bilingual broadcast, select which audio channel to record (see *Bilingual Recording* on page 140).

2 Applicable only to HDD recording. (If this setting is used when recording to DVD, **MN32** is used.) When copied to DVD, **XP+** recordings are always copied in real time.

5 MAIN/SUB + AUDIO If you're recording from the A.TV tuner, select the audio channel to record.

See *Changing A.TV audio channels* on page 82 for more on this.

- When recording in VR mode, if a broadcast is bilingual, both audio channels are recorded, allowing you to switch the audio channel on playback. The only exception to this is when the picture quality is set to **LPCM**, in which case you do need to select the audio channel before recording.

6 MAIN/SUB + AUDIO If you're recording from the D.TV tuner, select the audio language to record.

- You may also be able to set which subtitle language to record; use **SUBTITLE** to select.
- Note that audio and subtitle languages cannot be changed during the recording of a digital broadcast.

7 REC Start recording.

If you want to set a recording end time, press the ● **REC** button repeatedly. The recording time increases in 30 minute increments, up to a maximum of six hours. The time the recording will end is shown on-screen and in the front panel display. When the recording ends, the recorder automatically switches into standby if no other operation is being performed.

- To cancel the set recording time, press ● **REC**.
- If you want to pause recording at any time[1], press **II PAUSE**. Press again to restart the recording (If recording to the HDD, DVD-RAM or in VR mode, a new chapter is started after recording restarts).

8 STOP REC Press to stop recording.

- If you set the recording time in the previous step, you can still stop the recording anytime by pressing □ **STOP REC**.
- Recording will stop automatically when there is no more space on the HDD/DVD, or after 12 hours of HDD recording (whichever is sooner).

Tip

- During recording you can turn on/off the SCART loop through function. During recording, press the front panel **CH +** button to switch to **SCART THRU** (loop through on), or **CH –** to switch to **SCART NORM** (loop through off). Loop through is automatically reset to off after recording has finished. Note that you can't switch loop through on if recording from the **AV1 (RGB)-TV** connector.

Pause Live TV

HDD

The Pause Live TV feature lets you effectively pause a TV programme you're watching. When you're ready to resume watching, just press the ► **PLAY** button.

Setting up for Pause Live TV

You can use the Pause Live TV feature with an AV Link-compatible TV connected using a SCART cable (see *TV tuner setup for Pause Live TV* below), or using this recorder's internal tuner (see *Using the recorder's internal tuner for Pause Live TV* on page 85).

TV tuner setup for Pause Live TV

To use this feature with an external TV tuner, the recorder must be connected to your TV using a SCART cable, and the *AV. Link* setting (page 145) should be set to *This Recorder Only*.[2] See also *Pause Live TV* on page 145 for more on this.

In order to use Pause Live TV, make the following connections and settings.

- Pause Live TV will not work as expected when watching TV via an external component such as a VCR or digital tuner. It only works with the channel selected on the TV.

Important

- Pause Live TV only works with the built-in A.TV (analog) tuner. It does not work with the D.TV tuner or the external inputs. Make sure the **Auto Channel Setting** is set to **Download from TV** (see *Auto Channel Setting* on page 139).

1 Connect this recorder to your TV with a SCART cable.

2 Press HOME MENU.

3 Select 'Initial Setup' > 'Options2' > 'Pause Live TV' > 'TV's Tuner'.

4 Select 'Initial Setup' > 'Analog Tuner' > 'Auto Channel Setting' > 'Download from TV'.

- If the Download from TV option appears grayed out, check the connections to your TV and try again.
- Depending on your TV, you might have to switch off and unplug it for a few moments before plugging it back in and switching it on again.

5 Follow the on-screen instructions.

Note

1 Except during Chase Play.

Using the recorder's internal tuner for Pause Live TV

If you haven't connected to your TV using a SCART cable (or your TV is not compatible with AV Link) you can use the recorder's internal tuner for the Pause Live TV.

1 Press HOME MENU.

2 Select 'Initial Setup' > 'Options2' > 'Pause Live TV' > 'Recorder's Tuner'.

See *Pause Live TV* on page 145 to do this.

You can record the channel selected on the recorder.

Using Pause Live TV



1 Start recording the current TV channel.

Recording continues with playback paused.

- Note that it may take up to 10 seconds for recording to start.



2 Press to start playback.

You can also use the scan buttons (◀◀/▶▶), pause (❚❚ **PAUSE**) and stop (■ **STOP**) — all without affecting the recording.



3 Press to stop the recording.

The operation is slightly different depending on the viewing source. See the *Operation table* below for details.

Tip

- When the *Pause Live TV* setting (see page 145) is set to **TV's Tuner**, you can press **PAUSE LIVE TV** while the recorder is in standby to switch on and immediately start recording. When set to **Recorder's Tuner**, it is not possible to use the Pause Live TV feature from standby.
- After pressing **PAUSE LIVE TV**, it will take at least 10 seconds for the picture to change (during this time, all controls except the power button are inoperative). (Note that startup from standby is not possible if you have selected **Recorder's Tuner** in *Pause Live TV* on page 145.)
- Please note that you can't record from another component (VCR, etc.) that is connected by a SCART cable to the **AV2 (INPUT 1/DECODER)** connector using the Pause Live TV feature.

Operation table

Viewing source	TV/DVD mode of DVR	DVR source	Pause Live TV function button	Condition
TV built-in analog tuner	TV	–	Pause Live TV	Preset channel of DVR and TV are matched after downloading from TV.
			Direct TV recording*1	Preset channel of DVR and TV are NOT matched after downloading from TV. Record TV programme that you're watching.
TV built-in digital tuner	TV	–	Direct TV recording*1	Preset channel info. in D.TV cannot be shared by DVR even after Download from TV. Record TV programme that you're watching.
External input of TV	TV	–	Direct TV recording*1	Record TV programme that you're watching.
DVR built-in analog tuner	DVD	DVR built-in analog tuner	Pause Live TV	
DVR built-in digital tuner	DVD	DVR built-in digital tuner	Pause Live TV	

**1 No Chase Play! Warning if you change input this will stop the recording.*

2 • Not all TVs support this feature. Check the instructions that came with your TV if you are unsure.
• This feature will not work unless your TV is compatible with AV Link. See the operating instructions that came with your TV if you're unsure about your TV's compatibility with this feature.

About timer recordings

DVD (VR) DVD (Video) DVD+R DVD+RW DVD-RAM HDD

Using the timer recording features you can program up to 32 timer recordings up to a month in advance. Timer recording programmes can be set to record just once, every day, or every week.

You can set the recording quality for your timer recording in the same way as for a regular recording, but with the added option of an **AUTO** mode, which maximizes the recording quality for the space available on the disc (if recording to DVD), or to fit on to a blank DVD disc (if recording to the HDD).

You can set timer recordings to record to a recordable DVD or to the hard disk drive. For regular (daily or weekly) HDD timer recordings that you don't need to keep, you can use the Auto Replace Recording feature to automatically replace the previous timer recording with the new one. Note that when you use this feature, the previous recording made on that timer programme will be replaced by the next one, regardless of whether you have watched it yet or not.

You can also set the recorder so that it will adjust the recording quality to try and fit the recording on to the disc if it would not otherwise fit at the recording quality you set (see *Optimized Rec* on page 142 for more on this).

Finally, if you set a timer recording to record to DVD but there isn't a recordable DVD loaded at the time of the recording, the Recovery Recording feature will automatically record the programme to the HDD for you.

This recorder is compatible with VPS (Video Programming System) and PDC (Programme Delivery Control) systems used by many analog TV stations to ensure that a timer recording catches the whole programme even when the programme is not running to schedule. Up to eight timer programmes can be set with VPS/PDC on.

Important

- A timer recording can't be set if there are already 32 timer programmes waiting to be recorded.
- Timer recording will not start if:
 – The recorder is already recording.
 – A disc is being initialized, finalized or unfinalized.
- Timer recording will start when the operation preventing timer recording has finished.
- When the front panel display is set to ON, the timer indicator (⏲) lights in the front panel display when the timer is active. If the indicator is blinking it means that (for a DVD timer recording) there is no disc loaded, or the disc loaded is not recordable (for an HDD timer recording it means that the HDD is not recordable).
- Approximately two minutes before a timer recording is set to start, the recorder will go into timer recording standby. In timer recording standby you cannot use some functions.
- The maximum length for timer recordings made to the HDD is 24 hours. However, because one title (HDD) is limited to 12 hours, recordings over 12 hours will be spread over two titles. Note that there will be a break in the recording of a few seconds between titles.
- VPS/PDC works only with analog stations; it does not work with digital TV stations.
- VPS/PDC may not work with all broadcast stations in your country/area. Check with the stations for compatibility.
- The hours between 3:00 and 5:00 in the morning are used by the GUIDE Plus+ system to download programme information. During these times, VPS/PDC may not work reliably; leave VPS/PDC off if you set a timer recording for these times.
- If VPS/PDC is active for two timer programmes that are programmed to start at the same time, then the programme that actually starts first takes priority.

Extending a timer recording in progress

You can extend a timer recording beyond the programmed end time. This can be useful if a broadcast programme overruns, for example.

Cancelling or extending the timer

1 REC **Press and hold for three seconds during a timer recording.**

Recording continues, but the timer indicator disappears from the front panel display indicating that the timer has been cancelled.

2 REC **Press repeatedly to extend recording in 30 minute blocks.**

Stopping a timer recording

1 STOP REC **Press during a timer recording.**

2 **Select 'Yes' to confirm.**

Preventing use of the recorder before a timer recording (child lock)

You can make all the front panel and remote control buttons inoperative using the child lock feature. This is useful when you set a timer recording and want to make sure that the timer settings are not changed before recording has finished.

1 RECORDER **If the recorder is on, switch it into standby.**

2 **[Front panel] Press and hold for three seconds to lock the controls.**

The front panel display briefly shows **LOCKED**. If any buttons are pressed on the remote or front panel, **LOCKED** is briefly displayed again.

- To unlock the recorder, press and hold ■ (Stop) on the front panel (while the recorder is stopped) for three seconds until the display shows **UNLOCKED**.

Timer recording FAQ

Frequently Asked Questions

- *Even though the timer is set, the recorder doesn't start recording!*

 Check that the disc loaded or HDD is recordable, not locked (see *Lock Disc* on page 132), and that there are fewer than 99/999 titles already on the DVD/HDD.
- *The recorder won't let me enter a timer programme! Why not?*

 You can't enter a timer programme if the clock isn't set.
- *What happens when two or more timer programmes overlap?*

 Basically, the programme with the earlier recording start time has priority. However, the recorder will start recording the programme with the later start time after the earlier programme is finished.
 If schedule to record two programmes have the same times (but different channels, for example), then only one of the two programmes will be recorded. In this event you should cancel the scheduled recording of the lesser important programme. If one of the overlapping programmes is a regular timer programme for a digital broadcast, you may choose **'Cancel Once'** in order to avoid having it overlap with a separately scheduled programme (see *Skipping a regular timer programme* on page 77).

Simultaneous recording and playback (Chase Play)

HDD

Chase Play allows you to watch a recording that is still in progress from the start, without having to wait until the recording has finished (i.e., playback is 'chasing' the recording).

In fact, you're not just limited to watching the recording in progress. You can watch anything else already on the HDD (or on a DVD if you're recording to the HDD) by selecting it from the Disc Navigator screen (see *Using the Disc Navigator with recordable discs and the HDD* on page 94).

Chase Play is not possible when DV is the recording input.

- PLAY **Press during recording to start playback from the beginning of the current recording[1].**
- DISC NAVIGATOR **Press during recording to select another title to play.**

You can use all the usual playback controls, such as pause, slow-motion play, scan and skip.

- To stop playback, press ■ **STOP** (recording will continue).
- To stop recording, press □ **STOP REC** (playback will continue).
- During recording or in timer recording standby, you can't play an HDD title, DVD or Video CD/Super VCD disc if the Input Line System setting doesn't match the TV line system of the disc/HDD title (see also *Additional information about the TV system settings* on page 146). Also, during simultaneous recording and playback, if the TV line system of the playback track/title changes then playback will automatically stop.

Note

1 You can't start playback immediately after recording starts. Simultaneous playback and recording doesn't work while copying or backing up.

Recording from an external component

DVD (VR) DVD (Video) DVD+R DVD+RW DVD-RAM HDD

You can record from an external component, such as a camcorder or VCR, connected to one of the recorder's external inputs.

1 Make sure that the component you want to record from is connected properly to the HDD/DVD recorder.
See Chapter 2 (*Connecting up*) for connection options.

VIDEO IN

2 Press repeatedly to select one of the external inputs to record from.
The current input is shown on-screen and in the front panel display:

- **AV2/L1** – Input 1[1]
- **L2** – Input 2 (front panel)
- **L3** – Input 3

Check that the **Audio In** settings for **External Audio** and **Bilingual Recording** are as you want them (see *Audio In* on page 140).

- If the aspect ratio is distorted (squashed or stretched), adjust on the source component or your TV before recording.
- To watch video coming in via the DV input (front panel), select **DV** > **DV Video Playback** from the Home Menu (see also *Playing from a DV camcorder* on page 101).

REC MODE

3 Set the recording quality.
- See *Setting the picture quality/recording time* on page 83 for detailed information.

HDD/DVD

4 Select the HDD or DVD for recording.

REC

5 Press to start recording.
- If your source is copy-protected using Copy Guard, you will not be able to record it. See *Restrictions on video recording* on page 80 for more details.

Playing your recordings on other DVD players

DVD (VR) DVD (Video) DVD+R DVD+RW

Most regular DVD players can play finalized discs recorded in DVD-R/-RW (Video mode) and DVD+R discs. A number of players (including many Pioneer models) can also play DVD-RW discs recorded in VR mode, finalized or not. Most players will not play VR mode DVD -R discs, although some DVD-ROM drives and DVD recorders may be able to (finalization might be necessary). Check the manual that came with the player to check what kinds of discs it will play.

When you finalize a DVD-R/-RW (Video mode) or DVD+R disc, a title menu is created from which you can select titles when you play the disc. There are a number of different styles of title menu to choose from to suit the content of the disc.

All the title menus are navigated in the usual way, pressing **MENU** or **TOP MENU** to display the menu, then using the ⬆/⬇/⬅/➡ followed by **ENTER** to select titles and start playback.

Finalizing a disc

DVD (VR) DVD (Video) DVD+R DVD+RW

Finalizing 'fixes' the recordings on the disc so that it can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive.[2]

Note that the disc name will appear in the title menu after you finalize a disc. Make sure the disc name is as you want it before you finalize the disc as it can't be changed afterwards. If you want to rename the disc, see *Input Disc Name* on page 132 before starting the steps below.

DVD+RW discs don't generally need finalizing. However, if you want a title menu to appear when you play the disc, then you will need to finalize. When using a DVD+RW, you can still record and edit even after finalizing. although the title menu will disappear if you do so. Finalize the disc again to generate a new title menu.

Important

- Once you've finalized a DVD-R/-RW (Video mode) or DVD+R disc, you can't edit or record anything else on that disc. However, the finalization on a DVD-RW disc maybe 'undone'; see *Undo Finalize* on page 133 for how to do this.

Note

1 This cannot be selected if **AV2/L1 In** is set to **Decoder** (see *AV2/L1 In* on page 140).
2 If the TV line system of the disc is different to the current setting of the recorder, you will not be able to finalize the disc. See *Additional information about the TV system settings* on page 146 for how to change the recorder's setting.

- A VR mode DVD-R/-RW (excluding DVD-R DL) disc can still be recorded and edited on this recorder even after finalizing.
- DVD-R DL (Video mode) discs and DVD+R DL discs must be finalized in order to play in other recorders/players. Note however that some recorders/players will not play even finalized dual-layer discs.

1 Load the disc you want to finalize.
Make sure that the recorder is stopped before proceeding.

2 HOME MENU Select 'Disc Setup' from the Home Menu.

3 Select 'Finalize' > 'Finalize' > 'Next Screen'.



4 For DVD-R/-RW (Video mode) and DVD+R/+RW discs only, select a title menu style, then select 'Yes' to start finalization or 'No' to cancel.
The menu you select will be the one that appears when the 'top menu' (or 'menu' for a DVD+R/+RW) is selected on any DVD player.



- Discs recorded partially or fully on the Pioneer DVR-7000 DVD recorder do not support this feature. These discs will have only a text title menu when finalized on this recorder.

5 The recorder will now start finalizing the disc.
During finalization:

- If the finalization process of a DVD-RW or DVD+R/+RW disc is going to take more than around four minutes, you can press **ENTER** to cancel. Around four minutes before completion, the option to cancel disappears.
- You can't cancel the finalization of a VR mode DVD-R disc.
- How long finalization takes depends on the type of disc, how much is recorded on the disc and the number of titles on the disc. A disc recorded in VR mode can take up to one hour to finalize. DVD-R/-RW (Video mode) and DVD+R/+RW discs can take up to 20 minutes.

Initializing recordable DVD discs

DVD-R DVD-RW DVD+RW DVD-RAM

DVD-R/-RW discs can be initialized for either Video mode recording or VR mode recording.[1]

When you first load a blank DVD-RW or DVD+RW disc, the recorder initializes it for recording automatically. By default, blank DVD-RW discs are initialized for VR mode recording. See *DVD-RW Auto Initialize* on page 90 if you want to change the default to Video mode.

DVD-R discs are ready for Video mode recordings out of the box; if you want to use a DVD-R for VR mode recording, you must initialize it before recording anything on the disc.

DVD+RW and DVD-RAM discs can also be initialized in order to erase the contents of the disc.

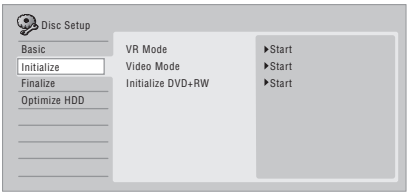
Important

- Initializing a DVD-RW, DVD+RW or DVD-RAM disc will erase everything recorded on it. Make sure there is nothing on the disc that you want to keep!
- You may not be able to re-initialize a DVD-RW disc in a different format if it was originally initialized on an older DVD recorder.
- Once initialized for VR mode recording, you can't re-initialize a DVD-R back to Video mode.

Note
1 If a disc was previously finalized on an older DVD recorder, you may not be able to re-initialize and/or initialize it for Video mode recording.

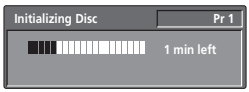
1 HOME MENU **Select 'Disc Setup' from the Home Menu.**

2 **Select 'Initialize' > 'Video Mode', 'VR Mode' or 'Initialize DVD+RW'.**



3 **Select 'Start'.**

It takes about 30 seconds to initialize the disc (except DVD-RAM discs, which can take up to an hour).



DVD-RW Auto Initialize

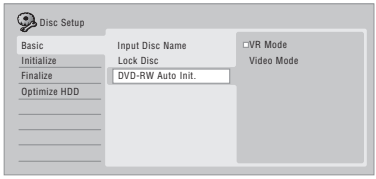
DVD-RW

- Default setting: **VR Mode**

Initialization mode is automatically carried out when you insert a blank DVD-RW. You must set the desired initialization mode before inserting a disc.

1 HOME MENU **Select 'Disc Setup' from the Home Menu.**

2 **Select 'Basic'>'DVD-RW Auto Init.', then 'VR Mode' or 'Video Mode'.**



Chapter 7
Playback

Introduction

Most of the features described in this chapter make use of on-screen displays. Navigate these using the cursor buttons and **ENTER**. To go back one level from any screen, use the **RETURN/EXIT** button.

Remember also that the button guide at the bottom of every screen shows which buttons do what.

Many of the functions covered in this chapter apply to the HDD, DVD discs, Video CDs, Super VCDs, WMA/MP3/DivX discs and CDs, although the exact operation of some varies slightly with the kind of disc loaded.

- Many functions are not available when a Video CD is playing in PBC mode. Start playback from the Disc Navigator screen for non-PBC playback (see *Using the Disc Navigator with playback-only discs* on page 95).
- For discs that contain JPEG picture files, see *The PhotoViewer* on page 125.

Basic playback

ALL

This section shows you how to use your recorder for playback of discs (DVD, CD, etc.), and for playback of video from the HDD.

Important

- Throughout this manual, the term 'DVD' means any kind of playable or recordable DVD. If a function is specific to a particular kind of DVD disc, it is specified.
- Some DVD-Video, DVD+R and DVD+RW discs don't allow certain playback controls to operate at certain points in the disc. This is not a malfunction.

HDD/DVD

1 Select the HDD or DVD for playback.

- If playing video from the HDD, skip to step **3** below.
- Select DVD for any kind of disc playback.

▲ OPEN/CLOSE

2 [Front panel] Load a disc.

Load a disc with the label side facing up, using the disc tray guide to align the disc (if you're loading a double-sided DVD-Video disc, load it with the side you want to play face down).

- If you want to play a DTS audio CD, please first read the note on page 93.

PLAY

3 Start playback.

- If you're playing a DVD-Video or Video CD, a disc menu may appear when you start playback. Use the ↑/↓/←/→ buttons, number buttons, and **ENTER** to navigate DVD disc menus, and the number buttons and **ENTER** for Video CD menus.
- When playing video from the HDD, playback will automatically stop after the end of a title is reached.
- There may be a slight pause when playback switches from the first to the second layer of a dual-layer disc.
- See the following sections for more details on playing specific kinds of discs.

STOP

4 Press to stop playback.

5 When you've finished using the recorder, eject the disc and switch the recorder back into standby.

Playing DVD discs

The table below shows the basic playback controls for DVD-Video, and recordable DVD discs.

PLAY	Press to start playback. If **RESUME** is displayed on-screen, playback starts from the place last stopped.
STOP	Press to stop playback. You can resume playback from the same point by pressing ► **PLAY**. (Press ■ **STOP** again to cancel the resume function.)
PAUSE	Pauses playback, or restarts playback when paused.
◄◄ ►►	Press to start scanning. Press repeatedly to increase the scanning speed.
PREV NEXT	Press to skip to previous/next chapter/title. (During playback you can also use the front panel **CH +/–** buttons.) *DVD+R/DVD+RW only:* I◄◄ **PREV** may not always skip to the previous title.



Except VR mode: During playback, enter a chapter number then press **ENTER** to skip directly to that chapter within the currently playing title.
On some discs, you can also use the number buttons to select numbered items in the disc menu.



VR mode only: During playback, enter a title number then press **ENTER**.
All: Press **CLEAR** to clear a number entry and start again.



(Commercial back/skip)
Turn the **Smart Jog** counter-clockwise for backward skip; turn clockwise for forward skip. You can search up to two hours in either direction.



While paused, press and hold to start slow-motion playback. Press repeatedly to change the playback speed.
While paused, press to advance a single frame in either direction. You can also execute frame-by-frame playback/backward scanning via the **Smart Jog**.



Press to display the menu of a DVD-Video disc. (DVD+R/+RW discs finalized on this recorder will display the Disc Navigator. Press **MENU** to display the disc menu.)



Use the cursor buttons to navigate DVD-Video disc menus; press **ENTER** to select items.

Press to return to the previous level of a DVD-Video disc menu.

Playing from the HDD

The table below shows the basic playback controls when playing video recorded on the hard disk (HDD).



Press to start playback.
If **RESUME** is displayed on-screen, playback starts from the place last stopped. Playback automatically stops after the end of a title is reached.



Press to stop playback.
You can resume playback from the same point by pressing ► **PLAY**. (Press ■ **STOP** again to cancel the resume function.)



Pauses playback, or restarts playback when paused.



Press to start scanning. Press repeatedly to increase the scanning speed.



Press to skip to previous/next chapter/title. (During playback you can also use the front panel **CH +/–** buttons.)



During playback, enter a title number then press **ENTER** to skip directly to that title. Press **CLEAR** to clear a number entry and start again.



(Commercial back/skip)
Turn the **Smart Jog** counter-clockwise for backward skip; turn clockwise for forward skip. You can search up to two hours in either direction.



While paused, press and hold to start slow-motion playback. Press repeatedly to change the playback speed.
While paused, press to advance a single frame in either direction. You can also execute frame-by-frame playback/backward scanning via the **Smart Jog**.

Playing CDs and WMA/MP3 discs

The table below shows the basic playback controls for audio CDs[1], and WMA/MP3 files.

PLAY ▶	Press to start playback.
STOP ■	Press to stop playback.
PAUSE ❚❚	Pauses playback, or restarts playback when paused.
◀◀ ▶▶	*Except WMA:* Press to start scanning. Press again to increase the scanning speed. (There are two scan speeds; the current scan speed is shown on-screen.)
PREV ⏮ NEXT ⏭	Press to skip to previous/next track (or folder for WMA/MP3 disc). (During playback you can also use the front panel **CH +/–** buttons.)
 ENTER	During playback, enter a track number then press **ENTER** to skip directly to that track. Press **CLEAR** to clear a number entry and start again.

Playing Video CD/Super VCDs

The table below shows the basic playback controls for Video CD/Super VCDs.

Some discs feature Playback Control (PBC for short) menus. These discs show PBC in the display when you load them and display a menu on-screen from where you can select what to watch.[2]

PLAY ▶	Press to start playback. *Video CD only:* If **RESUME** is displayed on-screen, playback starts from the place last stopped.
STOP ■	Press to stop playback. *Video CD only:* You can resume playback from the same point by pressing ▶ **PLAY**. (Press ■ **STOP** again to cancel the resume function.)
PAUSE ❚❚	Pauses playback, or restarts playback when paused.
◀◀ ▶▶	Press to start scanning. Press repeatedly to increase the scanning speed.
PREV ⏮ NEXT ⏭	Press to skip to previous/next track. When a PBC menu is displayed, press to display the previous/next page. (During playback you can also use the front panel **CH +/–** buttons.)
 ENTER	During playback, enter a track number then press **ENTER** to skip directly to that track. Press **CLEAR** to clear a number entry and start again. While a PBC menu screen is displayed, use to select numbered menu items.
	*Video CD in non-PBC mode only:* (Commercial back/skip) Turn the **Smart Jog** counter-clockwise for backward skip; turn clockwise for forward skip. You can search up to two hours in either direction.
I▶/II▶	While paused, press and hold to start slow-motion playback. Press repeatedly to change the playback speed (forward only). While paused, press to advance a single frame (forward only). You can also execute frame-by-frame playback via the **Smart Jog**.
RETURN/EXIT	Press to display the disc menu of a Video CD/Super VCD playing in PBC mode.

Note

1 If you want to play a DTS audio CD, make sure the recorder is connected to a DTS-compatible amp/receiver with a digital connection. Noise will be output through the analog outputs. Also make sure that **STEREO** is selected using the **AUDIO** button (see *Switching audio channels* on page 99).

2 When playing in PBC mode, some playback features, such as search, repeat and programme play are not available. You can play a PBC Video CD/Super VCD in non-PBC mode by starting playback using the Disc Navigator (see *Using the Disc Navigator with playback-only discs* on page 95).

Playing DivX video files

The table below shows the basic playback controls for DivX video files.

PLAY ►	Press to start playback. If **RESUME** is displayed on-screen, playback starts from the place last stopped. Playback of titles (DivX files) proceeds in alphabetical order.
STOP ■	Press to stop playback. You can resume playback from the same point by pressing ► **PLAY**. (Press ■ **STOP** again to cancel the resume function.)
PAUSE ❚❚	Pauses playback, or restarts playback when paused.
◄◄ ►►	Press to start scanning. Press repeatedly to increase the scanning speed.
PREV I◄◄ NEXT ►►I	Press to skip to previous/next title. (During playback you can also use the front panel **CH +/–** buttons.)
I►/II► ►►	While paused, press to advance one frame. Press and hold to start slow motion playback (press repeatedly to change the slow motion play speed). You can also execute frame-by-frame playback via the **Smart Jog**.
MAIN / SUB + AUDIO	Press to display the playback audio type; press repeatedly to change the playback audio type.
MAIN / SUB + SUBTITLE	Press to display subtitle information; press repeatedly to change subtitles.

Using the Disc Navigator to browse the contents of a disc

Use the Disc Navigator to browse the contents of a disc and start playback.

Using the Disc Navigator with recordable discs and the HDD

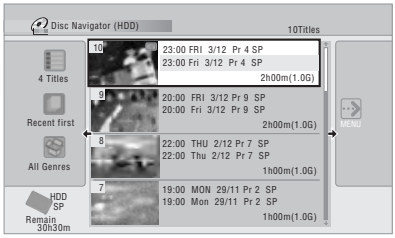
DVD-R DVD-RW DVD+R DVD+RW DVD-RAM HDD

You can use the Disc Navigator to browse and edit video on recordable DVDs and the HDD, and to view information on titles.

See also *Editing* on page 104 for more on editing recordable discs.

1 HDD/DVD **Select the HDD or DVD.**

2 DISC NAVIGATOR **Open the Disc Navigator.**



- You can also access the Disc Navigator from the Home Menu.

3 **Browse the list of titles.**

- You can also use the **Smart Jog** to select titles.
- Use the I◄◄ **PREV**/►►I **NEXT** buttons to display the previous/next page of titles.
- To change the thumbnail picture displayed for a title see *Set Thumbnail* on page 108.
- For HDD recordings, you should be able to see a thumbnail title digest. If it doesn't display, set Set Preview to **Normal**. See *Set Preview* on page 145.

4 ENTER **Play the highlighted title.**

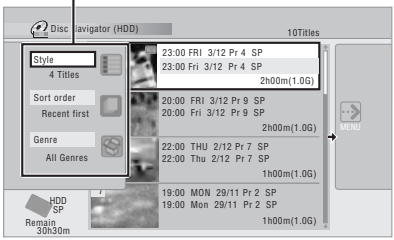
- You can also select **Play** from the command menu options.

Changing the display style of the Disc Navigator

You can choose to display titles in the Disc Navigator in various different ways, sorted alphabetically, by recording date, by genre, and so on. You can also choose whether to display four or eight titles on the screen at the same time.

1 **Display the View Options panel.**

The View Options panel



2 **Choose 'Style', 'Sort order' or 'Genre', then press ENTER to see the available view options.**

- **Style** – Select four or eight titles per screen view
- **Sort order** – Sort by date (most recent first), unwatched first, title name or recording date (oldest first)
- **Genre** – Display all genres or just a selected genre

3 **Choose a view option, then press ENTER.**

The title list display is updated according to the new display preferences.

Using the Disc Navigator with playback-only discs

DVD-Video CD Video CD Super VCD WMA/MP3 DivX

1 HOME MENU **Display the Home Menu.**

2 **Select 'Disc Navigator'.**

Alternatively, for a CD, Video CD, Super VCD or WMA/MP3/DivX disc, you can press **DISC NAVIGATOR**, which takes you straight to the Disc Navigator screen.

3 **Select what you want to play.**

Depending on the type of disc you have loaded, the Disc Navigator looks slightly different, but they are all navigated in the same way.

The screen below shows a WMA/MP3/DivX disc. Navigate to the folder, or the track/title within a folder that you want to play.



Playback starts after you press **ENTER**.

- For discs that contain CD-Audio tracks and WMA/MP3 tracks or DivX titles, you can switch the playback area between **CD**, **WMA/MP3** and **DivX**. This can only be done while the disc is stopped.

Scanning discs

ALL *(except WMA)*

You can scan discs at various speeds, forwards or backwards.[1]

1 ◀◀ ▶▶ **During playback, start reverse or forward scanning.**

- The scanning speed is shown on-screen.

2 ◀◀ ▶▶ **Press repeatedly to change the scanning speed.**

There are four scanning speeds available when playing HDD video, a DVD or a DivX title. Reverse playback is also possible with HDD and DVD video.[2]

There are two scanning speeds for other types of disc.

3 PLAY ▶ **Resume normal playback.**

Note

1 • No subtitles are displayed when scanning DVDs and DivX titles.
• No sound is output when scanning from the HDD, DVDs and DivX, except on forward **SCAN 1**.
• Depending on the disc, normal playback may automatically resume when a new chapter is reached on a DVD disc.

2 Reverse playback may not be smooth.

Playing in slow motion

DVD HDD Video CD Super VCD DivX

You can play video at various slow motion speeds. DVDs and video on the HDD can be played in slow motion in either direction, while Video CDs/Super VCDs and DivX titles can only be played forwards in slow motion.

There is no sound when playing in slow motion.

PAUSE

1 Pause playback.

◄II/◄ I►/II►

2 Press and hold to start slow motion reverse or forward play.

◄II/◄ I►/II►

3 Press repeatedly to change the slow motion speed.

The current playback speed is indicated on-screen.

PLAY

4 Resume normal playback.

Frame advance/frame reverse

DVD HDD Video CD Super VCD DivX

You can advance or back up video on a DVD disc[1] or the HDD frame-by-frame.

With Video CDs/Super VCDs and DivX titles, you can only use frame advance.

PAUSE

1 Pause playback.

◄II/◄ I►/II►

2 Back up or advance one frame with each press.

- You can also do this by rotating the **Smart Jog**.

PLAY

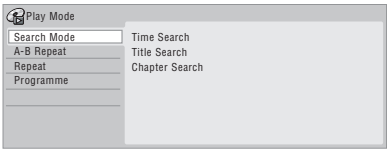
3 Resume normal playback.

The Play Mode menu

ALL

The Play Mode menu gives you access to search functions, repeat and programme play functions.

- HOME MENU **Select 'Play Mode' from the Home Menu.**



Search Mode

ALL

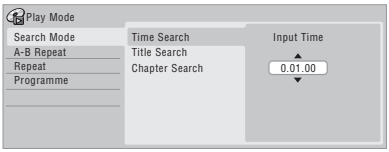
The Search Mode feature lets you start playback from a specified point in a disc by time[2] or by title/chapter/folder/track number.

ENTER

1 Select 'Search Mode' from the Play Mode menu, then choose a search option.

The available search options depend on the type of disc.

2 Enter a title/chapter/folder/track number or a search time.



Time Search (HDD, DVD): For example, for 25 minutes into the current title, press **2**, **5**, **0**, **0**. For 1 hour and 15 minutes and 20 seconds into the title, press **1**, **1**, **5**, **2**, **0**.

Time Search (Video CD): For example, for 2 minutes and 30 seconds into the current track, press **2**, **3**, **0**.

Title/Chapter/Folder/Track Search: For example, for track 6, press **6**.

ENTER

3 Start playback.

Note

1 Depending on the disc, normal playback may automatically resume when a new chapter is reached.
2 When using time search, playback may occasionally start slightly before or after the time you input.

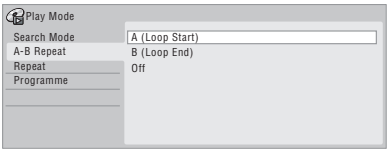
A-B Repeat

DVD HDD CD Video CD DivX

The A-B Repeat function allows you to specify two points (A and B) within a track or title that form a loop which is played over and over.[1]

1 During playback, select 'A-B Repeat' from the Play Mode menu.

2 With 'A (Loop Start)' highlighted, press at the point you want the loop to start.



3 With 'B (Loop End)' highlighted, press at the point you want the loop to end.
Playback immediately jumps back to the start point and plays the loop round and round.

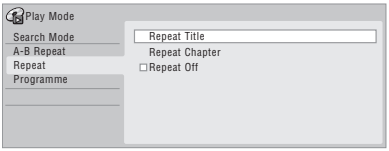
- When playing a DVD-Video, DVD-R/-RW (Video mode), DVD+R/+RW, or from the HDD, the start and end points of the loop must be in the same title.
- To resume normal playback, select **Off** from the A-B Repeat menu, or press **CLEAR** if no menu OSD (such as the Play Mode menu) is displayed.

Repeat play

ALL

There are various repeat play options, depending on the kind of disc loaded, or if you're using the HDD for playback. It's also possible to use repeat play together with programme play to repeat the tracks/chapters in the programme list (see *Programme play* below).[2]

• Select 'Repeat' from the Play Mode menu, then choose a repeat play mode.



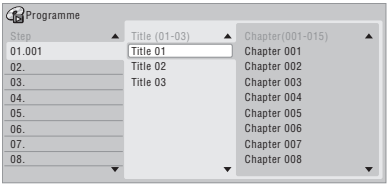
- To resume normal playback, select **Repeat Off** from the Repeat Play menu, or press **CLEAR** if no menu OSD (such as the Play Mode menu) is displayed.

Programme play

HDD DVD-Video CD Video CD Super VCD WMA/MP3

This feature lets you program the play order of titles/chapters[3]/folders/tracks on a disc or the HDD.

1 Select 'Programme' from the Play Mode menu, then 'Input/Edit Programme'.
The Input/Edit Programme screen varies according to the disc type. Below is the DVD input screen.



Note

1 If you switch camera angles on a DVD during A-B repeat play, A-B repeat is cancelled.
2 If you switch the camera angle during repeat play of a DVD-Video disc, repeat play is cancelled.
3 When playing a programme list of DVD-Video chapters, chapters not included in the programme list may be sometimes be played, depending on the disc.

2  **Select a title, chapter, folder or track for the current step in the programme list.**
After pressing **ENTER** to add the title/chapter/folder/track, the step number automatically moves down one.

- To insert a step into the programme list, highlight the step number where you want to insert another step, then select a chapter/title/folder/track as usual. After pressing **ENTER**, all the subsequent steps move down one.
- To delete a step from the programme list, highlight the step you want to delete, then press **CLEAR**.

3 Repeat step 2 to build up a programme list.
A programme list can contain up to 24 titles/chapters/folders/tracks.

4  **Play the programme list.**
Programme play remains active until you cancel programme play, erase the programme list, eject the disc or switch off the recorder.

Tip

- To save your programme list and exit the programme edit screen without starting playback, press **HOME MENU**.
- During programme play, press ►►I **NEXT** to skip to the next programme step.
- To repeat play the programme list, select **Programme Repeat** from the Repeat Play Mode menu (see *Repeat play* on page 97).
- Press **CLEAR** during playback to switch off programme play (if no menu OSD, such as the Disc Navigator, is displayed). Press while stopped to erase the programme list.
- From the programme menu you can also:
 Start Programme Play – Starts playback of a saved programme list
 Cancel Programme Play – Turns off programme play, but does not erase the programme list
 Erase Programme List – Erases the programme list and turns off programme play

Displaying and switching subtitles

DVD-Video DivX

Some DVD and DivX discs have subtitles in one or more languages; the disc box will usually tell you which subtitle languages are available. You can switch subtitle language during playback.[1]

Check the disc packaging for details of the subtitle options.

-  **Select/change the subtitle language.**

The current subtitle language is shown on-screen and in the front panel display.

- To switch off subtitles, press **SUBTITLE** then **CLEAR**.

Switching DVD and DivX soundtracks

DVD-Video DivX

When playing a DVD disc or DivX title recorded with two or more soundtracks (often in different languages), you can switch the soundtrack during playback.[2]

Check the disc packaging for details of the soundtrack options.

-  **Change the audio soundtrack.**

The current audio language is shown on-screen and in the front panel display.

- The sound may drop out for a few seconds when switching soundtracks.
- Some discs feature both Dolby Digital and DTS soundtracks. There is no analog audio output when DTS is selected. To listen to the DTS soundtrack, connect this recorder to receiver subwoofer via the digital output. See *Basic connections* on page 10 for connection details.

Note

1 • Some discs only allow you to change subtitle language from the disc menu. Press **MENU** or **TOP MENU** to access.
• To set subtitle preferences, see *Subtitle Language* on page 141.

2 • Some discs only allow you to change audio language from the disc menu. Press **MENU** or **TOP MENU** to access.
• To set audio language preferences, see *Audio Language* on page 141.

Switching audio channels

DVD (VR) DVD-RAM HDD CD Video CD Super VCD WMA/MP3

For HDD[1] and VR mode content recorded with bilingual audio, you can switch between left (**L**) channel, right (**R**) channel, or both (**L+R**).[2]

When playing Video CDs and audio CDs you can switch between stereo, just the left channel or just the right channel.

Some Super VCDs have two soundtracks. With these discs you can switch between the two soundtracks as well as individual channels in each.

- MAIN 2 SUB + AUDIO **Press repeatedly to display/switch the audio channel.**

The audio channel(s) currently playing are indicated on-screen.

HDD DVD (VR) DVD-RAM

L+R – Both channels (default)
L – Left channel only
R – Right channel only

CD Video CD WMA/MP3

Stereo – Stereo (default)
1/L – Left channel only
2/R – Right channel only

Super VCD

1 Stereo – Soundtrack 1/Stereo (default)
1 L – Soundtrack 1/Left channel
1 R – Soundtrack 1/Right channel
2 Stereo – Soundtrack 2/Stereo
2 L – Soundtrack 2/Left channel
2 R – Soundtrack 2/Right channel

Switching camera angles

DVD-Video

Some DVD-Video discs feature scenes shot from two or more angles — check the disc box for details: it should be marked with a icon if it contains multi-angle scenes. When a multi-angle scene is playing, the same icon appears on screen to let you know that other angles are available (this can be switched off if you prefer — see *Angle Indicator* on page 143).

- MAIN 2 SUB + ANGLE **Switch the camera angle.**
 - The angle number is displayed on-screen.
 - If the disc was paused, playback starts again with the new angle.

Displaying disc information on-screen

You can display various on-screen information about the disc loaded or the HDD.

- DISPLAY **Display/change the on-screen information.**
 - Press once to show the HDD and removable disc (DVD, etc.) activity together. Press again to show the status of just the currently selected playback/recording device (HDD or removable disc).
 - To hide the information display, press **DISPLAY** repeatedly until it disappears.

HDD and removable disc activity display

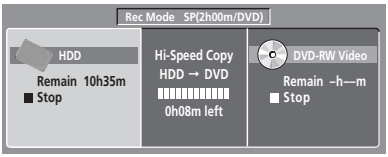
Press **DISPLAY** once to see the HDD and removable disc (DVD, etc.) activity. Use the **HDD/DVD** button to switch between the two kinds of display.

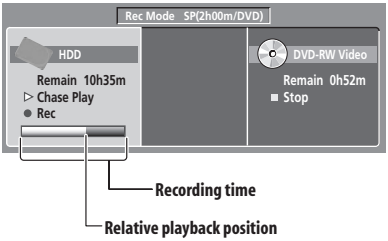
Note

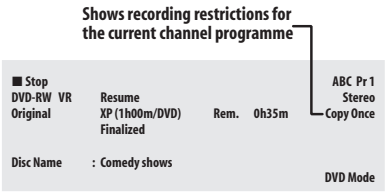
1 Only when HDD Recording Format is set to Video Mode Off (*HDD Recording Format* on page 143).

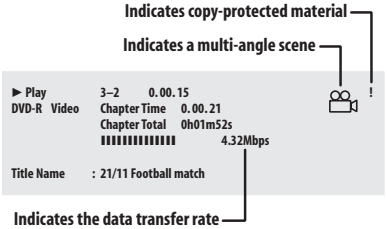
2 • When playing a Bilingual recording on a VR mode disc, if you are listening to the Dolby Digital soundtrack via the digital output, you cannot switch the audio channel. Set **Dolby Digital Out** to **Dolby Digital → PCM** (see *Dolby Digital Out* on page 141) or listen via the analog outputs if you need to switch the audio channel.
• When playing a Dolby Digital source, you can also switch channels from the Dual Mono menu of the receiver subwoofer — see *Dual mono setting* on page 32.

The example displays below show high-speed copying from HDD to DVD, and HDD chase playback.









Tip

- See *Switching camera angles* on page 99 for more on multi-angle scene switching.
- When using the simultaneous play and record feature, the display shows information for playback only.
- During real-time copy, the copy source playback information is displayed.
- The Video mode DVD-R/-RW displays become the same as a DVD-Video disc once the disc is finalized.
- The total recording time figure shown in parenthesis is calculated based on a 12 cm/4.7 GB disc at the displayed record setting.
- Recording and playback times for TV recordings are approximately 0.1 % shorter than the actual time. This is because of the slightly different frame rates of TV broadcasts versus DVD.
- The frame number is shown next to the elapsed time display when the disc is paused.
- **Copy Once** or **Can't Record** messages may appear in the stop or recording displays. These indicate that the broadcast TV programme contains copy control information.

Chapter 8

Playing and recording from a DV camcorder

You can play back and record video from a DV camcorder connected to the **DV IN** jack on the front panel of this recorder.

Important

- If you connect a second recorder using a DV cable, you cannot control the second unit from this one.
- You can't control this recorder remotely from a component connected to the **DV IN** jack.

Playing from a DV camcorder

1 Make sure your DV camcorder is connected to the front panel DV IN jack.

2 From the Initial Setup menu, check that the DV audio input is setup as you would like.
See *DV Input* on page 140 for more on this.

- Check also that the **Audio In** settings for **External Audio** and **Bilingual Recording** are as you want them (see *Audio In* on page 140).

3 (HOME MENU) Select 'DV', then 'DV Video Playback' from the Home Menu.

4 Start playback on the camcorder.
Images from the camcorder should appear on your TV.

- To record the incoming video, press **HDD/DVD** to select the HDD or a DVD for recording, then press ● **REC**. Press □ **STOP REC** to finish recording.
 If there is no signal from the device connected to the DV jack, or the signal is copy-protected, recording will pause. It will automatically restart once there is a recordable signal.
- The recorder will only start recording from the **DV IN** jack if there is a valid signal. Recording will pause if the signal is interrupted during recording.
- If your source is copy-protected using Copy Guard, you will not be able to record it. See *Restrictions on video recording* on page 80 for more details.

Recording from a DV camcorder

- The source signal must be DVC-SD format.
- You can't record date and time information from DV cassette.
- During DV recording, if a part of the tape is blank, or has copy-protected material on it, this recorder will pause recording. Recording will restart automatically when there is a recordable signal. However, if there is more than two minutes of blank tape, this recorder will stop recording and the camcorder should stop (depending on the camcorder).

Copying from a DV source

Using the recorder's remote, you can control both the camcorder and this recorder.

Important

- Some camcorders cannot be controlled using this recorder's remote.
- For best results when recording from a DV camcorder to this recorder, we recommend cueing the camcorder to the place you want to start recording from and setting the camcorder to play-pause.

1 Make sure your DV camcorder is connected to the front panel DV IN jack.
Also, set the camcorder to VTR mode.

2 (REC MODE) Set the recording quality.

- See *Setting the picture quality/recording time* on page 83 for detailed information.

3 From the Initial Setup menu, check that the DV audio input is setup as you would like.
See *DV Input* on page 140 for more on this.

- Check also that the **Audio In** settings for **External Audio** and **Bilingual Recording** are as you want them (see *Audio In* on page 140).

4 (HOME MENU) Select 'DV', then 'Copy from a DV Source' from the Home Menu.

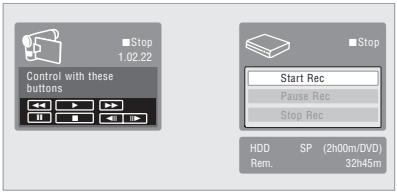
- DV recording only works when the DV camcorder is in VTR mode with a tape loaded.

5 Select 'Record to Hard Disk Drive' or 'Record to DVD'.

6 Find the place on the camcorder tape that you want to start recording from.
For best results, pause playback at the point from which you want to record.

- Depending on your camcorder, you can use this recorder's remote to control the camcorder using the ■ , ► , ❚❚ , ◄◄ , ►► , ◄❚❚ and ❚❚► buttons.

7 Select 'Start Rec'.



- You can pause or stop the recording by selecting **Pause Rec** or **Stop Rec** from the on-screen display. You cannot control the camcorder from this remote control during recording.
- If you restart recording after stopping the camcorder, the first few seconds of the camcorder tape will not be recorded. Use the pause button on your camcorder instead and recording will start immediately.
- *HDD, DVD (VR Mode) and DVD-RAM only:* A chapter marker is inserted every time there is a break in the timecode on the DV tape. This happens when the recording is stopped or paused then restarted, for example.
- If you don't want to see the DV recording screen during recording, press **DISPLAY** to hide it (press again to display).
- While recording, you cannot exit the DV recording screen using the **HOME MENU** or **RETURN/EXIT** button.

DV Auto Copy

DV Auto Copy allows you to make an exact copy of the contents of a DV source to the HDD or a DVD.

1 Make sure your DV camcorder is connected to the front panel DV IN jack.
Also, set the camcorder to VTR mode.

2 Set the recording quality.

- See *Setting the picture quality/recording time* on page 83 for detailed information.

3 From the Initial Setup menu, check that the DV audio input is setup as you require.
See *DV Input* on page 140 for more on this.

- Check also that the **Audio In** settings for **External Audio** and **Bilingual Recording** are as you want them (see *Audio In* on page 140).

4 Select 'DV', then 'DV Auto Copy' from the Home Menu.

- DV recording only works when the DV camcorder is in VTR mode with a tape loaded.

5 Select 'Record to Hard Disk Drive' or 'Record to DVD'.
The DV tape is rewound to the beginning. Once it is rewound, the DV tape is played from the beginning and copied to either the HDD or a DVD.

- If there is a gap of two minutes or more between recorded contents, the copying process is automatically stopped.
- Once copying is finished, the DV tape is automatically rewound.
- To cancel the copying process, press □ **STOP REC** for more than three seconds.

About automatic finalization

If you use a DVD-R/-RW (Video mode) or DVD+R/+RW disc for copying, it will automatically be finalized after copying is complete.

- You can't customize the background for DVD-R/-RW or DVD+R/+RW disc finalization.
- No title names are assigned.
- If you want to give the disc a name, please do so before you start the copy (see *Input Disc Name* on page 132).
- If a timer recording is scheduled to start, and in some other instances, the disc will not be finalized.

Frequently Asked Questions

- *I can't get my DV camcorder to work with the recorder!*

 Check that the DV cable is properly connected. Also make sure that what you're trying to record is not copy-protected.

 If it still doesn't work, try switching off the camcorder then switch back on.

- *There's a picture, but no sound!*

 Try switching the **DV Input** setting (see *DV Input* on page 140) between **Stereo 1** and **Stereo 2**.[1]

About DV

Using DV, also known as i.LINK or IEEE 1394-1995, you can connect a DV camcorder to this recorder using a DV cable for input of audio, video, data and control signals.

"i.LINK" and the "i.LINK" logo are trademarks.

- This recorder is only compatible with DV-format (DVC-SD) camcorders. Digital satellite receivers and Digital VHS video recorders are not compatible.
- You cannot connect more than one DV camcorder at a time to this recorder.
- You cannot control this recorder from external equipment connected via the **DV IN** jack.
- It may not always be possible to control the connected camcorder via the **DV IN** jack.
- DV camcorders can usually record audio as stereo 16-bit/48 kHz, or twin stereo tracks of 12-bit/32 kHz. This recorder can only record one stereo audio track. Set the **DV Input** setting as required (see *DV Input* on page 140).
- Audio input to the **DV IN** jack should be 32 kHz or 48 kHz (not 44.1 kHz).
- Picture disturbance in the recording may occur if the source component pauses playback or plays an unrecorded section of tape, or if the power fails in the source component, or the DV cable is disconnected.
- The **DV IN** jack is an input only. There is no output functionality.

Note

1 If the audio subcode on the DV tape cannot be read correctly, the audio type will not switch automatically. You can switch the audio manually from the **External Audio** setting (page 140).

Chapter 9
Editing

Editing options

The table below shows which commands you can use with the HDD and different disc types.

	HDD	DVD-R/-RW (Video mode), DVD+R/+RW	DVD-R/-RW, DVD-RAM (VR mode)	
			Original	Play List
Create (page 106)				●
Play (page 106)	●	●	●	●
Erase (page 106)	●	●	●	●
Edit > Title Name (page 107)	●	●	●	●
Edit > Set Thumbnail (page 108)	●	●	●	●
Edit > Erase Section (page 108)	●		●	●
Edit > Divide (page 109)	●			●
Edit > Chapter Edit (page 109)	●		●	●
Edit > Set Genre (page 110)	●			
Edit > Lock (page 111)	●	●	●	
Edit > Move (page 111)				●
Edit > Combine (page 112)				●
Genre Name (page 112)	●			
Multi-Mode (page 113)	●			
Undo (page 113)		●	● *1	● *1

**1 DVD-R/-RW only*

The Disc Navigator screen

The Disc Navigator screen is where you can edit video content on unfinalized Video mode and DVD-R/-RW (VR mode) discs, DVD+R/+RW and DVD-RAM, as well as video content on the hard disk drive.

Important

- Titles that have been recorded with a Input Line System setting different to the current setting of the recorder are shown in the Disc Navigator with a blank thumbnail image. See also *Additional information about the TV system settings* on page 146.
- During recording, if you display the Disc Navigator for the HDD, some of the titles may appear with a ⚠ mark. These titles were recorded with a Input Line System setting different to the current setting of the recorder. During recording, these titles cannot be played.

HDD/DVD

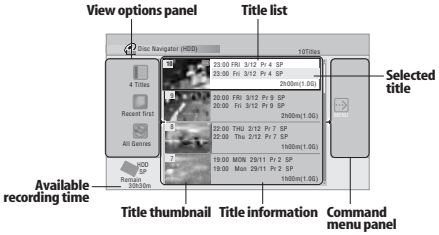
1 **Select the HDD or DVD.**

DISC NAVIGATOR

2 **Display the Disc Navigator screen.**

Playback will automatically stop when you do this.

- The Disc Navigator is also accessible from the Home Menu.



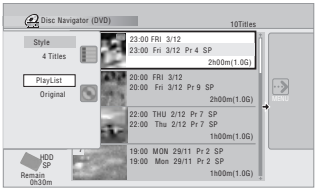
- Press to display the command menu panel. Use the ↑/↓ and **ENTER** buttons to navigate the menus.
- PREV NEXT When in the title list, press to display the previous/next page if there are more titles than can be displayed.

DISPLAY

- Press to change the title information displayed in the title list.

HDD/DVD

- Press to switch between the HDD and DVD Disc Navigator screens.
- If you are editing a DVD-R/-RW (VR mode) or DVD -RAM disc you can display the Play List by selecting **Play List** from the view options panel (press ←, then select **Play List** from the view options, then **Play List**).



- Titles on the HDD marked with a NEW icon are recently recorded titles that haven't yet been played.

DISC NAVIGATOR

3 **Press to exit the Disc Navigator.**

Editing accuracy

Some editing commands ask you whether you want to keep Video mode compatibility or frame accuracy (*Video Mode Compatible Editing* or *Frame Accurate Editing*).

Frame Accurate Editing is very precise. The edit point is accurate to the exact frame you choose. However, this accuracy is not preserved in any copy you make if you use the high-speed copy function to make a DVD-R/-RW (Video mode) or DVD+R/+RW.

Video Mode Compatible Editing is less precise. The edit point you choose will only be accurate to within one-half to one second. On the other hand, these edit points will be preserved if you use high-speed copy to make a DVD -R/-RW (Video mode) or DVD+R/+RW.

HDD genres

The large capacity of the HDD means that there may be many hours of video in the recorder. To help you organize your HDD video content you can assign different genres to titles. There are 20 genres in total, including five user-definable ones that you can name as you like.

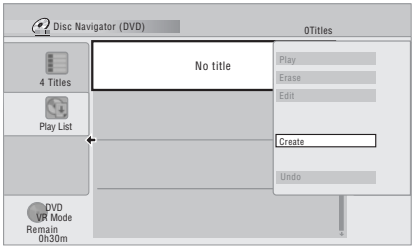
Create

DVD (VR) DVD-RAM *Play List only*

Use this function to create a Play List and add titles to it.

Before you can use this command, make sure that the Play List is switched on in the view options panel on the left.

1 **Select 'Create' from the command menu panel.**



2 **Select an original title to add to the Play List.**

- You can also use the **Smart Jog** to select titles.

Repeat these two steps to add as many titles as necessary to the Play List.

Play

DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM HDD

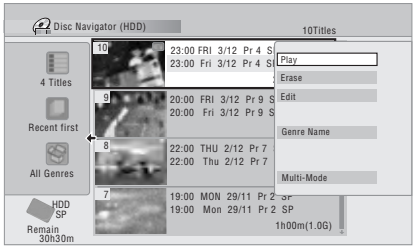
Use this function to start playback of a title.

1 **Highlight the title you want to play.**

- You can also use the **Smart Jog** to select titles.

2 **Select 'Play' from the command menu panel.**

Playback of the title you selected starts.



Erase

DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM HDD

Use this function to erase unwanted titles.

When you erase titles from the HDD or Original titles from a VR mode DVD-RW, the available recording space increases accordingly. Erasing a title from a DVD-RW (Video mode) or DVD+RW disc increases the available recording time only if it is the last title on the disc.[1]

Erasing Play List titles, or titles from a DVD-R (VR mode or Video mode) or DVD+R, will not result in any more free space on the disc.

1 **Highlight the title you want to erase.**

- You can also use the **Smart Jog** to select titles.

2 **Select 'Erase' from the command menu panel.**

3 **Select 'Yes' to confirm or 'No' to cancel.**

Tip

- You can erase a title quickly by pressing **CLEAR** when the title is highlighted. Confirm the edit by pressing **ENTER**.

Note

1 There may be cases where erasing a title from a DVD+R/+RW disc will result in incontiguous title numbers.

Title Name

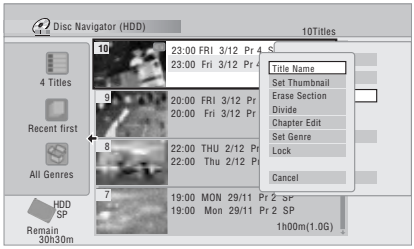
DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM HDD

You can give titles new names of up to 64 characters long for VR mode, DVD-RAM and HDD recordings, and up to 40 characters for Video mode recordings and DVD+R/+RW discs.

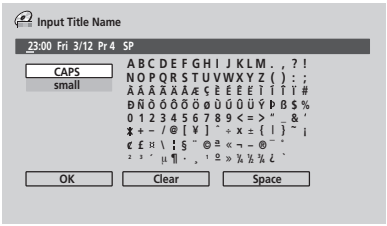
1 Highlight the title you want to name (or rename).

- You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Title Name' from the command menu panel.



3 Input a name for the selected title.



- A name generated automatically by the recorder will already be in the name input section of the screen. Use the ◄◄/►► buttons to change the cursor position.
- Select **CAPS** or **small** to change to upper or lower-case, or use the **CASE SELECTION** buttons (I◄◄ **PREV**/►►I **NEXT**).
- You can also use the **CLEAR** button to delete characters directly (press and hold for two seconds to delete the whole name).
- For discs formatted on a different DVD recorder, you will see only a limited character set.

4 Select 'OK' to enter the name and return to the main Disc Navigator screen.

- To return to the main Disc Navigator screen without saving changes to the title name, press **RETURN/EXIT**.

Using a USB keyboard to enter a name

Using a USB keyboard connected to this recorder makes entering names very quick and convenient.[1] When in USB keyboard input mode, a USB icon (⇢) appears in the lower-left of the screen.[2]

Other than the standard alpha-numeric keys, use the following keys when entering names:

Key	Function
← →	Change the cursor position
F1	Select **CAPS**
F2	Select **small**
delete	Delete character at the current cursor position
back space	Delete the character at the previous cursor position
enter	Enter the name
esc	Exit the input screen

Note

1 • It's possible that some USB keyboards will not work exactly as expected when connected to this recorder. See also *Connecting a USB device* on page 55 for more connection information.
• Certain keyboards may not be able to correctly input all characters.

2 If you use the remote control to enter a name when in the USB keyboard input mode, the recorder will automatically switch to remote control input mode. Press any key on the USB keyboard to return to USB keyboard input mode.

Set Thumbnail

HDD DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM

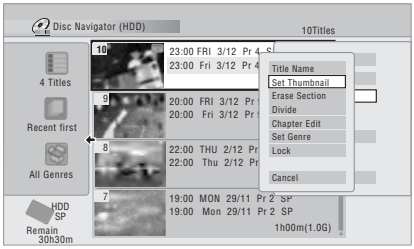
You can change the thumbnail picture that appears in the Disc Navigator for a title to any frame that appears in that title.

1 Highlight the title you want to change the thumbnail picture for.

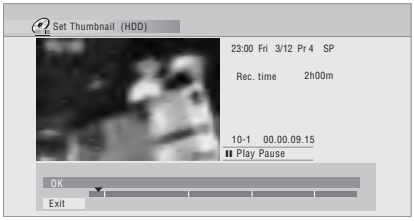
- You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Set Thumbnail' from the command menu panel.

The thumbnail setting screen appears from which you can find the frame you want.



3 Use the playback controls (▶, II, ◀◀, ▶▶, etc.) to find a suitable frame, then press ENTER to set.



You can also use the chapter and time search features (press the **YELLOW** button), and the **Smart Jog** (for **CM SKIP** and **CM BACK**).

4 Select 'Exit' to return to the Edit screen.

Erase Section

HDD DVD (VR) DVD-RAM

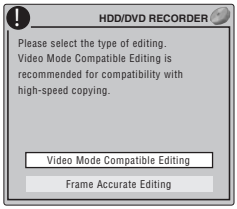
Using this command you can delete a part of a title, ideal for cutting out the commercial breaks in a recording made from the TV.

1 Highlight the title containing the section you want to erase.

- You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Erase Section' from the command menu panel.

3 *HDD only:* **Select the type of edit.**



- For more information about these options, see *Editing accuracy* on page 105.

4 Highlight 'From' then use the playback controls (▶, II, ◀◀, ▶▶, etc.) to find the start of the section to erase, then press ENTER.

The bar at the bottom of the screen indicates the current play position in the title. After pressing **ENTER**, a marker shows the start of the section.



5 Highlight 'To' then, in the same way, find the end of the section to erase, then press ENTER.

After pressing **ENTER**, another marker indicates the end of the section, with the section itself marked in red.

6 Select 'Yes' to confirm, or 'No' to cancel.

In the thumbnail viewer you can see a few seconds of video either side of the marked section to see how the edit will look.

- When editing VR mode Original content, you may not be able to erase very short sections (less than five seconds).

Divide

HDD DVD (VR) DVD-RAM *Play List only*

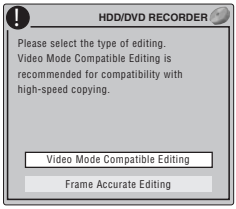
Use this command to divide a title into two. Note that once divided, the two new HDD titles cannot be recombined into one again.

1 Highlight the title you want to divide.

- You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Divide' from the command menu panel.

3 *HDD only:* **Select the type of edit.**



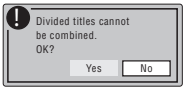
- For more information about these options, see *Editing accuracy* on page 105.

4 Use the playback controls (▶, ❚❚, ◀◀, ▶▶, etc.) to find the place you want to divide the title.



5 ENTER Press to divide the title at the current playback position.

6 Select 'Yes' to confirm or 'No' to cancel.



Chapter Edit

DVD (VR) DVD-RAM HDD

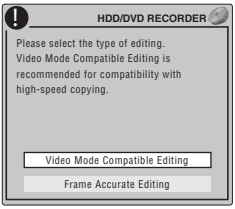
When editing a VR mode DVD or video on the HDD you can edit individual chapters within a title, with commands for erasing, combining and dividing.

1 Highlight the title that contains the chapters you want to edit.

- You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Chapter Edit' from the command menu panel.

3 *HDD only:* **Select the type of edit.**



- For more information about these options, see *Editing accuracy* on page 105.

4 Select the command you want:

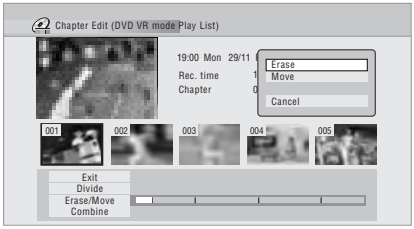
- **Divide** – Divide a chapter into two or more parts: Use the playback controls (►, ❚❚, ◄◄, ►►, etc.) to find the point at which you want to divide the chapter, then press **ENTER**.



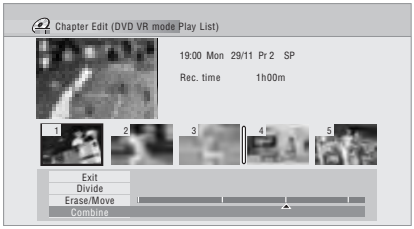
You can keep dividing the chapter as many times as you wish (up to 999 chapters per DVD-R/-RW/-RAM disc or 99 chapters per HDD title).

- **Erase**[1]**/Move**[2] – Erase or move chapters: Select the chapter you want to erase/move and press **ENTER**. Select whether you want to erase or move the chapter.

 Move command only: Select the destination for the chapter, and press **ENTER**.



- **Combine**[3] – Combine two adjacent chapters into one: Highlight the bar divider between two adjacent chapters and press **ENTER**.



5 Select 'Exit' to get back to the main Disc Navigator screen.

Set Genre

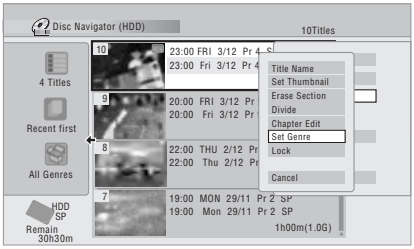
HDD

Use this command to assign a genre to a title.

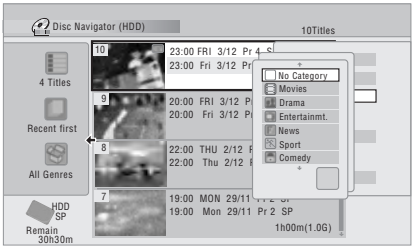
1 Highlight the title you want to assign a genre to.

- You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Set Genre' from the command menu panel.



3 Select a genre for the title.



Note

1 When editing VR mode Original content, it may not be possible to erase chapters less than five seconds long.
2 VR mode Play List only.
3 It may not always be possible to combine two chapters, even though they are adjacent. If a chapter has been divided into three, then the middle chapter erased, it is not possible to combine the two remaining chapters into one.

Lock

HDD DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM

Original only

You can lock a title so that it can't be edited or erased accidently. If you do need to edit it, you can always unlock it later.

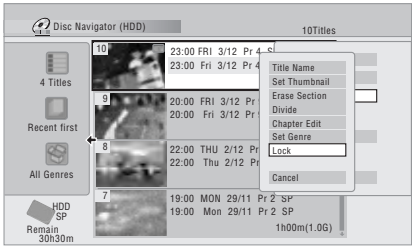
Important

- You can't undo any edits made before changing the lock status. You also can't undo a lock/unlock command using the **Undo** option from the Disc Navigator menu.

1 Highlight the title you want to lock (or unlock).

- You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Lock' from the command menu panel.



An unlocked title will become locked; a locked title will be unlocked. Locked titles are shown in the Disc Navigator with a padlock icon.

Move

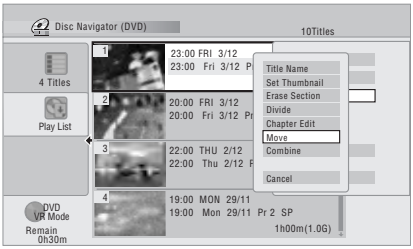
DVD (VR) DVD-RAM *Play List only*

Use this function to re-arrange the playing order of Play List titles.

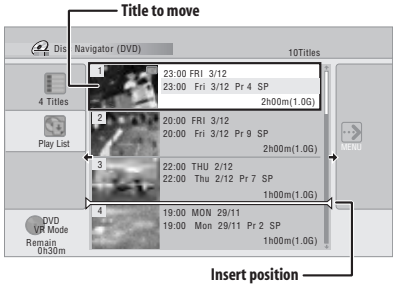
1 Highlight the title you want to move.

- You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Move' from the command menu panel.



3 Select a new position for the title.



After pressing **ENTER**, the new, updated Play List is displayed.

Combine

DVD (VR) DVD-RAM *Play List only*

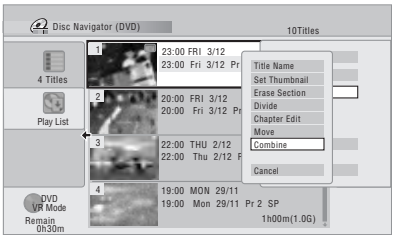
Use this function to combine two Play List titles into one.

1 Highlight the title you want to combine.

- You can also use the **Smart Jog** to select titles.

This title will remain in the same place after combining with another title.

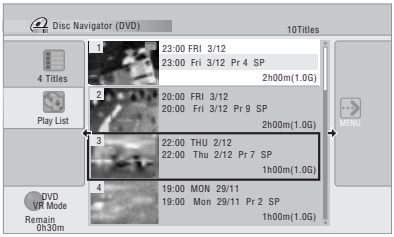
2 Select 'Edit' > 'Combine' from the command menu panel.



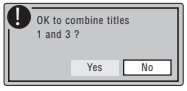
3 Select another title to combine with the first.

This title will be appended to the first title selected.

The screen below shows title 3 selected to be appended to title 1.



4 Select 'Yes' to confirm or 'No' to cancel.

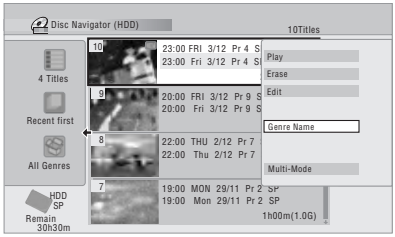


Genre Name

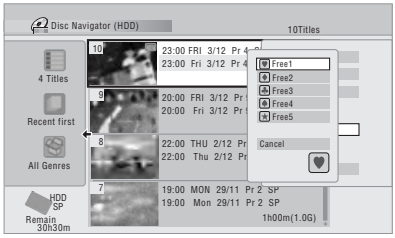
HDD

Use this command to rename one of the five user-definable genres (**Free 1** to **Free 5**).

1 Select 'Genre Name' from the command menu panel.

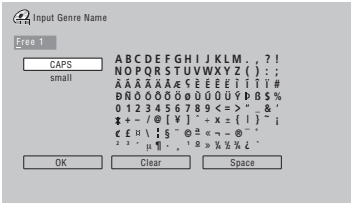


2 Select one of the user-definable genre names.



3 Input a name for the genre.

- The name can be up to 12 characters long.



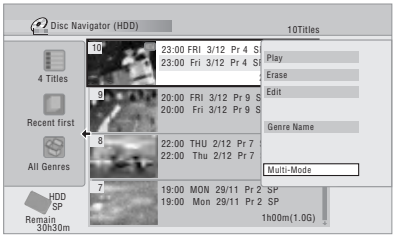
4 Select 'OK' to enter the name and exit.

Multi-Mode

HDD

Multi-Mode allows you to select several titles, then select a command that will be applied to all of them. In this way you can select multiple titles and then erase them all at once, for example.

1 Select 'Multi-Mode' from the command menu panel.



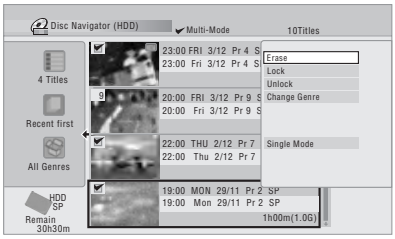
2 Select titles from the title list.

Selected titles are marked with a ☑.

- You can also use the **Smart Jog** to select titles.

3 Select the command that you want applied to all the marked titles.

For example, select **Erase** to erase all the marked titles.



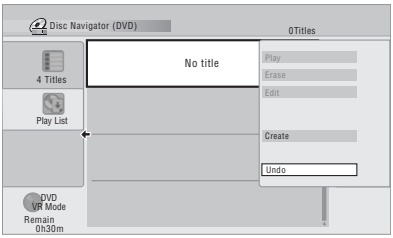
Once the command is completed, Multi-Mode is automatically exited.

Undo

DVD (Video) DVD (VR) DVD+R DVD+RW

If you make a mistake while editing, you can generally undo it. There is one level of undo (in other words, you can only undo the last edit you made).

- **Select 'Undo' from the command menu panel.**
 - You can't undo anything after exiting the Disc Navigator screen.



Frequently asked questions

- *Why doesn't the available recording time increase when I erase titles from a VR mode DVD-R?*

 When you erase titles from a DVD-R (or DVD+R), the titles are no longer displayed, but the content remains on the disc. DVD-R/+R are write-once media; they can't be erased or rewritten.

- *I can't edit my disc!*

 You may find that as the available recording time is reduced on a VR mode DVD-R disc, editing is no longer possible. This is because information about your edits requires a certain amount of disc space. As you edit, this information builds up, eventually preventing you from editing further.

Chapter 10
Copying and backup

Introduction

Use the copying features of this recorder to:

- Back up important recordings stored on the HDD to a DVD.
- Make a DVD copy of a recording on the HDD to play in another player.
- Transfer video from a DVD to the HDD for editing.
- Transfer edited video from the HDD to DVD.

The simplest way to copy a title is to use the One Touch Copy feature. This copies the currently playing HDD title to DVD, or DVD title to the HDD. See *One Touch Copy* below for detailed instructions.

For more sophisticated copying tasks you can build a Copy List of titles to copy, and edit titles so that you only copy the bits you want. See *Using Copy Lists* on page 115 for detailed instructions.

Where possible, the recorder will copy your recordings at high-speed. Depending on the recording mode, the kind of disc loaded and various other factors, copying can be as fast as one minute per hour of video. See *Minimum copying times* on page 150 for more on copying times.

If you want to save disc space you can copy video at a lower recording quality (for example, an **XP** recording on the HDD copied to **SP** on a DVD). Copying in this way is always done in real-time.

When real-time copying from the HDD to a DVD-R/-RW (Video mode) or DVD+R/+RW, the chapter markers in the original material are not copied. Chapter markers are put into the copy at intervals, according to the Auto Chapter settings (see also *Auto Chapter (Video)* and *Auto Chapter (DVD+R/+RW)* on page 143).

Restrictions on copying

Commercial DVD-Video discs are protected using Copy Guard. These discs cannot be copied to the HDD.

Some video material is copy-once protected. This means that it can be recorded to HDD, but it can't then be freely copied again. If you want to transfer copy-once protected material from HDD to DVD, you'll need to a CPRM ver. 1.1 or higher VR mode DVD-RW, ver. 2.0 or 2.1 VR mode DVD-R, or CPRM-compatible DVD-RAM disc (see *CPRM* on page 80 for more on this). Only one instance of a copy-once protected title can be added to the Copy List, and after it's been copied, the title is erased from the HDD (it is therefore not possible to copy a locked title that is copy-once protected).

You can identify copy-once protected material during playback by displaying disc information on-screen. If the current title is copy-once protected, an exclamation mark (**!**) is shown.

Copyright

Recording equipment should be used only for lawful copying and you are advised to check carefully what is lawful copying in the country in which you are making a copy. Copying of copyright material such as films or music is unlawful unless permitted by a legal exception or consented to by the rightowners.

One Touch Copy

* See also *Copyright* above.

The One Touch Copy feature copies the currently playing or selected (in the Disc Navigator) HDD title to DVD, or DVD title to HDD. The whole title is copied, regardless of where in the title you start the copy.

HDD to DVD copies are made in the same recording mode. When copying DVD to HDD, the copy is made in whatever recording mode is currently set.

Make sure that a recordable DVD disc is loaded when trying to copy from the HDD.

REC MODE

1 If you're copying from DVD to the HDD, select a recording mode.

Note that selecting a recording mode higher than the title playing will not result in a better quality recording.

ONE TOUCH COPY

2 Press during playback to copy the current title.

The front panel display indicates that the title is being copied.

- High-speed copying is used when copying from the HDD to DVD. Playback continues while copying.
- Real-time copying is used when copying from DVD to the HDD. Playback restarts from the beginning of the title.

Cancelling One Touch Copy

You can cancel a One Touch Copy once it's started.

• ONE TOUCH COPY **Press and hold for more than a second.**

Copying is cancelled and the video already copied is erased.

- If you cancel a HDD to DVD-R/+R copy, the space available for recording does not return to the pre-copy figure.

Notes on copying using One Touch Copy

Copying to DVD

- Title name, chapter markers, as well as thumbnail picture markers for the Disc Navigator, are also copied. However, if you copy to a DVD-R/-RW (Video mode) or DVD+R/+RW, only the first 40 characters of a name are copied.
- The chapter markers in the copy may not be in exactly the same positions as the original when recording on to a DVD-R/-RW (Video mode) or DVD+R/+RW.
- You can't use the One Touch Copy function to copy a title if any part of the title is copy-once protected.
- A title that contains mixed aspect ratios can't be copied to a DVD-R/-RW (Video mode) or DVD+R/+RW. Use a DVD-R/-RW (VR mode) or DVD-RAM disc for this type of material.
- Low resolution (**SEP** through **LP** modes[1]) widescreen material can't be copied to a DVD-R/-RW (Video mode) or DVD+R/+RW. Use a DVD-R/-RW (VR mode) or DVD-RAM disc for this type of material.
- When HDD Recording Format is set to Video Mode Off, titles recorded in **LP**/**MN9** to **MN15** modes cannot be high-speed copied to a DVD-R/-RW (Video mode) or DVD+R/+RW. Please use a DVD-R/-RW (VR mode) or DVD-RAM.
- Recordings of bilingual broadcasts cannot be high-speed copied to a DVD-R/-RW (Video mode) or DVD+R/+RW. Please use a DVD-R/-RW (VR mode) or DVD-RAM.
- **XP+** titles cannot be copied to DVD via One Touch Copy.
- Titles over eight hours cannot be copied to single-layer DVD+R/+RW discs using One Touch Copy. Use DVD+R DL discs for titles over eight hours.
- Titles recorded in **MN1** to **MN6**, **SEP**, **SLP** or **EP** mode cannot be copied to DVD+R/+RW using One Touch Copy.

Copying to the HDD

- The maximum title length for copying is 12 hours.
- Title name and chapter markers are also copied, except when copying from a finalized Video mode DVD-R/-RW.
- Thumbnail picture markers and chapter markers for the Disc Navigator are copied, but their position in the copy may be slightly changed from the original.
- If some part of the title being copied is copy-protected, copying will start, but the copy-protected portions will not be copied.

Using Copy Lists

* See also *Copyright* on page 114.

At its simplest, a Copy List is just a list of HDD or DVD titles that you want to copy. When copying HDD titles to DVD, you can, however, edit the titles in your copy list, erasing chapters you don't need, or re-naming titles, for example. Edits you make to titles in the Copy List do not affect the actual video content; only the 'virtual' content of the Copy List. So you can freely erase and modify anything in your Copy List safe in the knowledge that the actual content is not being altered.

Copying from HDD to DVD

Important

- The recorder can only store one Copy List at a time.
- The Copy List is erased if the Input Line System setting is changed (see *Additional information about the TV system settings* on page 146).
- Resetting the recorder to its factory settings (see *Resetting the recorder* on page 161) will erase the Copy List.

1 Load a recordable DVD.

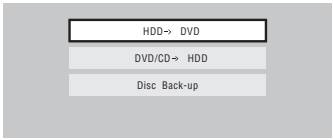
- It is possible to complete the following steps without having a recordable DVD loaded (or having an uninitialized DVD loaded); however, the steps are slightly different.
- If you want to use a DVD-RW (VR mode) disc for the copy, make sure it is initialized before you start.

2 HOME MENU **Select 'Copy' from the Home Menu.**

Note

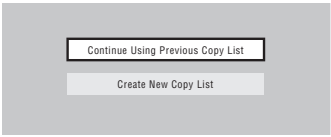
1 In manual recording mode these equate to **MN1** to **MN15** (Video Mode Off) or **MN1** to **MN8** (Video Mode On).

3 **Select 'HDD → DVD'.**



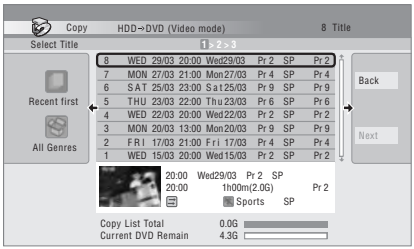
- If this is the first time to create a Copy List, skip to step **5** below.

4 If there is already a Copy List stored in the recorder, choose whether to 'Create New Copy List' or 'Continue Using Previous Copy List'.



- If you select **Continue Using Previous Copy List**, skip to step **10** below.
- Selecting **Create New Copy List** will erase any Copy List already stored in the recorder.

5 Add titles to the Copy List (highlight a title and press ENTER to add).



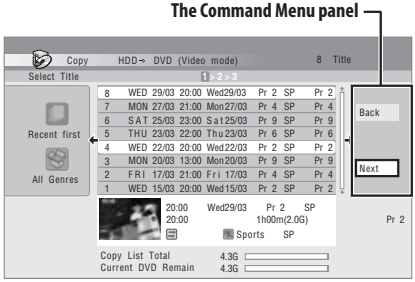
Titles you've added to the Copy List are highlighted in pink.

There are some restrictions on titles that can be added to the Copy List if you are copying to a DVD-R/-RW (Video mode) or DVD+R/+RW:

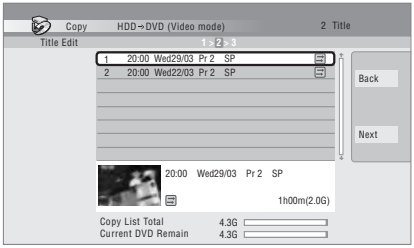
- When adding titles that contain copy-once protected material, the copy-once parts will not be added.
- When adding titles that contain material of more than one aspect ratio (screen size), each part with a different aspect ratio will be added as a separate title if high-speed copying is possible.

Depending on the title[1], high-speed copying may not be possible to DVDs.

6 Press ➡ to display the command menu panel.



7 Select 'Next' to move on to the Title Edit screen.



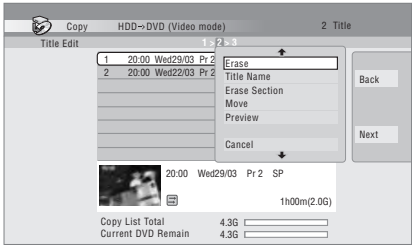
Note

1 The following titles cannot be copied at high-speed for DVD+R/+RW:
- Titles recorded in **MN1** to **MN6**, **SEP**, **SLP** or **EP** mode.

The following titles cannot be copied at high-speed for DVD-R/-RW (Video Mode) and DVD+R/+RW:
- Widescreen titles recorded at low resolution (**SEP** through **LP**/**MN1** to **MN15** (Video Mode Off) or **MN1** to **MN8** (Video Mode On)).
- **LP**/**MN9** to **MN15** recordings when HDD Recording Format is set to Video Mode Off.
- Bilingual recordings.
- Combined titles that were originally recorded using different recording modes.

The following titles cannot be copied at high-speed for any types of DVD:
- **XP+** titles.

8 To edit a title, highlight it using the ↑/↓ buttons, then press ENTER.



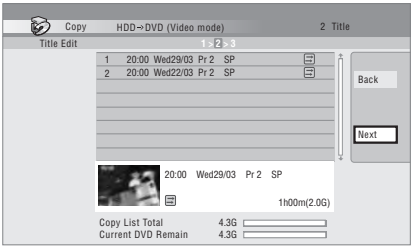
A menu of editing commands appears:

- **Erase** – Erase individual titles from the Copy List (see *Erase* on page 106).
- **Title Name** – Name or rename a title in the Copy List (see *Title Name* on page 107).
- **Erase Section** – Erase part of a title (see *Erase Section* on page 108).
- **Move** – Change the order of titles in the Copy List (see *Move* on page 111).
- **Preview** – Check the content of a title in the Copy List.
- **Divide** – Divide a title in the Copy List into two (see *Divide* on page 109).
- **Combine** – Combine two titles in the Copy List into one (see *Combine* on page 112).
- **Chapter Edit** – Edit chapters within a Copy List title (see *Chapter Edit* on page 109):
 - **Divide** – Divide a chapter into two.
 - **Erase/Move** – Erase a chapter/Change the chapter order.
 - **Combine** – Combine two chapters into one.
- **Set Thumbnail** – Set the thumbnail frame for a title (see *Set Thumbnail* on page 108).
- **Recording Mode** – Set the picture quality of the copy (see *Recording Mode* on page 118).
- **Bilingual** – Set how bilingual audio should be copied when copying from HDD to DVD-R/-RW (Video mode) and DVD+R/+RW (see *Bilingual* on page 119).
- **Cancel** – Exit the menu.

Repeat this step for as many titles you have that need editing.

9 Display the command menu panel.

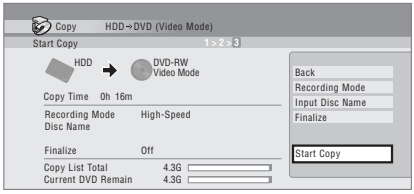
10 Select 'Next' to proceed.



There are several options available from the next screen:

- Select **Recording Mode** if you want to change the recording quality (see *Recording Mode* on page 118).
- Select **Input Disc Name** if you want to change the disc name. Input a name of up to 64 characters for a VR mode disc or 40 characters for a Video mode disc or DVD+R/+RW. (The input method is similar to that of naming titles; see *Title Name* on page 107.)
- Select **Finalize** if you want to automatically finalize a DVD-R/-RW (Video mode) or DVD+R after copying.[1] Select a title menu style from the following screen.

11 Select 'Start Copy' to start copying.



- If you're using a DVD-R DL or DVD+R DL disc and the copy will span both layers, the **Copy List Total** bar will be purple.
- The **Current DVD Remain** bar will be half-length if the first layer of a DVD-R DL or DVD+R DL disc is already full.

Note

1 If a timer recording is scheduled to start during copying, the disc will not be finalized.

Copying from DVD to HDD

Important

- The DVD to HDD Copy screen isn't accessible when a finalized Video mode DVD-R/-RW or a DVD-Video is loaded. As long as the disc is not Copy Guard protected, you can still use the One Touch Copy function, however (See *One Touch Copy* on page 114).
- The recorder can only store one Copy List at a time.
- The Copy List will be erased if:
 – any of the titles on the DVD disc are erased or edited.
 – the disc tray is opened.
 – playback is switched between Play List and Original.
 – the DVD disc is re-initialized or finalized.
 – the recorder is reset to its factory settings (see *Resetting the recorder* on page 161).
- It may not be possible to copy from a DVD disc that was recorded on a different DVD recorder or a PC.

1 HOME MENU **Select 'Copy' from the Home Menu.**

2 **Select 'DVD/CD → HDD'.**

3 **Select a Copy List type.**

- Selecting **Create New Copy List** will erase any Copy List already stored in the recorder.

4 **Add titles to the Copy List (highlight a title and press ENTER to add).**

Titles you've added to the Copy List are highlighted in pink.

5 **Select 'Next' from the command menu panel to proceed to the title edit screen.**

6 **Select a title to edit.**

A menu appears of Copy List editing commands:

- **Erase** – Erase individual titles from the Copy List (see *Erase* on page 106).
- **Move** – Change the order of titles in the Copy List (see *Move* on page 111).
- **Preview** – Check the content of a title in the Copy List.
- **Cancel** – Exit the menu.

Repeat this step for as many titles you have that need editing.

7 **Select 'Next' from the command menu panel to proceed to the copy options screen.**

- Select **Recording Mode** if you want to change the recording quality (see *Recording Mode* below).

8 **Select 'Start Copy' to start copying.**

Recording Mode

1 **Select 'Recording Mode' from the command menu panel.**

2 **Select a recording mode for the copy.**

- **High-Speed Copy**[1] – The Copy List is copied at the same recording quality as the original.
- **XP**, **SP**, **LP**, **EP**, **SLP**, **SEP**, **MN**[2] – The Copy List is copied at the specified recording quality in real-time. (Note that if you copy at a higher quality setting than the original, the copy will not be better quality than the original.)

 If you select **MN** above, you can also change the level setting (**MN1** to **MN32**[3], **LPCM** or **XP+**[4]) from the Recording Quality box that appears.

Note

1 When copying to a DVD-R/-RW (Video mode) or DVD+R/+RW, the chapter markers in the copy may not be in exactly the same position as the original.
2 When the copy mode is set to something other than High-Speed Copy for copying to a DVD-R/-RW (Video mode) or DVD+R/+RW, the chapter markers of the original are not copied. Chapter markers are put into the copy at regular intervals, according to the Auto Chapter setting (see also *Auto Chapter (Video)* and *Auto Chapter (DVD+R/+RW)* on page 143).
3 When copying to a DVD+R/+RW, **MN1** to **MN3** and **SEP** modes are not available.
4 **XP+** mode available only when copying to HDD.

- **Optimized**[1,2] – The recording quality is automatically adjusted so that the Copy List fits on to the space available on the disc. Copying is carried out in real-time.

When you change the recording mode setting, you can see how much disc space it will require. If this is more than is available, it shows up in red and you won't be able to start copying. In this case, either change the recording quality, or press **RETURN/EXIT** to go back to the Copy List screen and erase one or more titles from the Copy List.

Bilingual

1 **Select the title containing the audio you want to change.**

2 **Select 'Bilingual' from the command menu panel.**

3 **Select a bilingual audio option.**

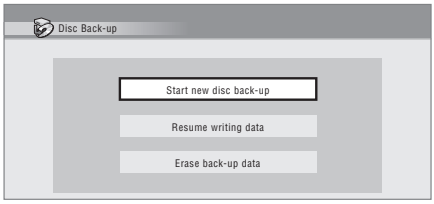
Using disc backup

* See also *Copyright* on page 114.

This feature offers a simple way to make a backup copy of finalized DVD-R/-RW (Video mode) discs or DVD+R/+RW discs. The data is copied first to the hard disk drive[3], then on to another recordable DVD disc.

1 HOME MENU **Select 'Copy', then 'Disc backup' from the Home Menu.**

2 **Select a backup option.**

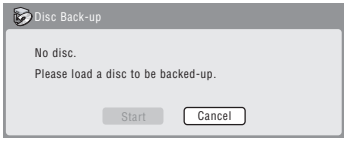


There are three backup options:

- **Start new disc back-up** – Start making a backup of a disc.
- **Resume writing data** – Record the backup data already on the HDD to a recordable DVD.
- **Erase back-up data** – Erase the backup data on the HDD.

3 **Load the disc you want to make a backup of.**

You can only make backup copies of finalized Video mode DVD-R/-RW discs, finalized DVD+R or DVD+RW discs (excluding DVD-R DL/DVD+R DL discs).



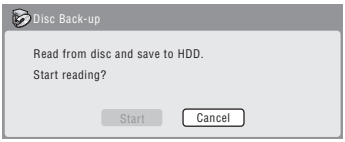
Note

1 When the copy mode is set to something other than High-Speed Copy for copying to a DVD-R/-RW (Video mode) or DVD+R/+RW, the chapter markers of the original are not copied. Chapter markers are put into the copy at regular intervals, according to the Auto Chapter setting (see also *Auto Chapter (Video)* and *Auto Chapter (DVD+R/+RW)* on page 143).

2 Optimized mode only available when copying to DVD. Due to remaining space on the disc or the title that you copy, this mode does not always exactly fill a disc.

3 It is not possible to play this material directly from the HDD.

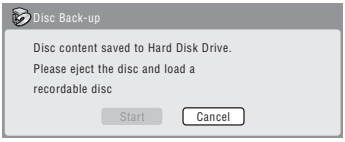
4 **Select 'Start'.**



- To see the progress of the backup, press **DISPLAY**.
- You can cancel the backup process by pressing **ONE TOUCH COPY** for more than one second.

5 When the data has been copied, take out the disc and load a blank* recordable DVD.

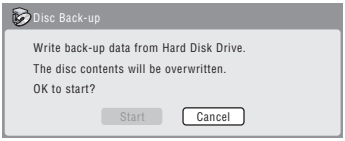
** If you're using a DVD-RW or DVD+RW, the disc doesn't have to be blank, although the previous contents of the disc will be erased in the backup process.*



You can use a DVD-R ver. 2.0, 2.1 or 2.2 disc, or DVD-RW ver. 1.1 or ver. 1.2 disc for the backup.

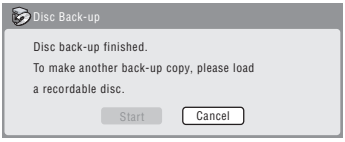
- If you backup a DVD-R disc to DVD-RW, you cannot undo the finalization later.
- Actual recordable capacity of discs vary so there may be cases where the contents of the disc you're backing-up will not fit on to a particular blank disc. If this happens, please try another brand of disc.
- DVD-R/-RW discs can only be backed up to DVD-R/-RW discs; DVD+R/+RW discs can only be backed up to DVD+R/+RW discs.

6 Select 'Start' to start writing the backed-up data to the blank disc.



- To see the progress of the backup, press **DISPLAY**.
- You can cancel the backup process by pressing **ONE TOUCH COPY** for more than one second. However, this will make the disc unusable (although if you are using a DVD-RW or DVD+RW disc you can re-initialize it in order to make it usable again — see *Initializing recordable DVD discs* on page 89.)

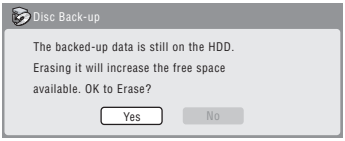
7 After the recorder has finished recording the backup disc, you can select whether to make another backup of the same data or exit.



- Select **Start** to make another backup copy or **Cancel** to finish. If you want to make another backup copy, return to step **6** above.

8 If you don't need to keep the backup data on the HDD, you can delete it now.

Select **Yes** to delete the data from the HDD; select **No** to keep it (you can delete it later if you want to).



- If you decide to leave the backup data on the HDD, you can make backup copies to recordable DVD discs anytime from the Disc Back-up menu.

Chapter 11
Using the Jukebox

The Jukebox feature allows you to use the recorder's HDD to store and playback music from up to 999 of your CDs. You can also transfer WMA/MP3 files stored on CD -R/-RW/-ROM, DVD, USB device or PC. Once on the HDD, you can name albums and tracks, assign them a genre, and set tracks that you don't want to play to Jump.

Copying music to the HDD

The first step is to copy some music to the HDD. CD audio, WMA and MP3 files are copied at high speed. All tracks are copied from each CD/DVD as an album.[1]

WMA/MP3 album and track names are copied along with the audio. CD album and track names are not copied, but you can add these later (see *Editing Jukebox albums* on page 124).

Usually, the tracks are copied to the HDD in the order they appear on the CD/DVD.

Note that once copied to the HDD, audio tracks cannot be copied to a recordable DVD disc.

Important

- While copying, no other recorder operation is possible.
- When copying, scheduled timer recordings will not start until copying is complete.
- Copy protected CDs may not copy successfully.

1 Load the CD/DVD you want to copy to the HDD.

2 HOME MENU **Select 'Copy' from the Home Menu.**



3 Select 'DVD/CD to HDD'.

On pressing **ENTER** all tracks (or files) on the CD or all WMA/MP3 files on the DVD are copied to the HDD.

- You can also start copying by starting playback of the CD/DVD and then pressing **ONE TOUCH COPY**.
- To cancel copying press **ENTER**.
- If the CD loaded contains both CD audio tracks and WMA/MP3 files, the part currently selected will play.

Copying files via USB

Connecting a regular USB device

You can copy WMA or MP3 files from a connected USB device, such as a USB drive, to the HDD.

1 Connect the USB device.

2 HOME MENU **Select 'Jukebox' from the Home Menu.**



3 Select 'Listen to Music from USB Device'.



4 Select 'Copy Album' from the command menu panel.



5 Select 'Yes' to confirm or 'No' to cancel.

The selected folder on the USB device will be copied to the HDD.

- Up to 99 folders/999 files on the USB device can be copied/displayed.

Connect PC

Using a USB connection, you can copy WMA and MP3 files from a PC to the HDD of this device. Operations carried out on the PC require Windows Media Player 10.

Important

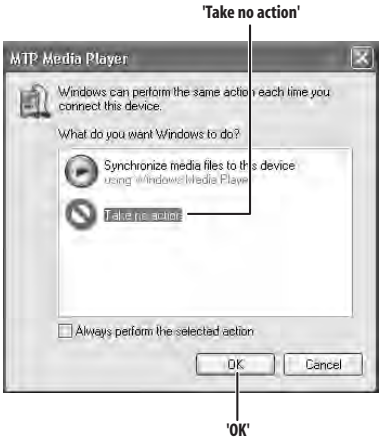
- If the PC you are using does not currently have Windows Media Player 10 installed, you must first install the program and make sure it functions correctly before connecting the USB cable and attempting to use the Connect PC function.
- For more information on Connect PC, see *Using a PC* on page 55.
- You cannot edit or delete albums from this device when it is connected to a PC via USB. If you wish to edit or delete albums via the Jukebox, you must first disconnect the USB cable.

Note

1 • Up to 999 albums can be created in the Jukebox. If you copy via Connect PC, the total number of albums you are able to create may be less than 999 (for more information, see page 123).
• Sound quality is not worsened when you copy data from another source.
• When playing back an album copied from a source whose original audio track plays continuously (such as a live recording), there will be a brief pause in sound between tracks.

1 Connect the PC via USB cable.
The screen below is displayed. Choose 'Take no action' and click 'OK'.

*Depending on the settings for Windows Media Player 10, the screen shown below may not be displayed.

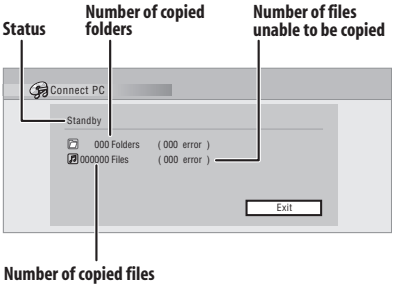


2 HOME MENU **Select 'Jukebox' from the Home Menu.**

3 **Select 'Connect PC'.**

4 **Select 'Yes' to confirm, or 'No' to cancel.**

5 Verify that the import screen is displayed on the device.
If no actions are carried out for 20 minutes, the import screen is automatically closed. To reopen it, you will have to repeat steps **2** through **4**.



6 Open Windows Media Player 10 on the PC.
The device settings screen appears. Click 'Cancel'.

*Depending on the settings for Windows Media Player 10, the screen shown below may not be displayed.



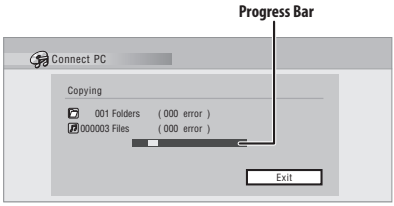
From the PC, in Windows Media Player 10:

1. **Click 'Library'.**
2. **Choose the artist, album or song you would like to copy, and press the right mouse button.**
3. **Click 'Add to Sync list' (when choosing songs, click 'Add to' then 'Sync list').**
4. **Click 'Start Sync'.**

This begins the synchronization process. When finished, the message 'Synchronized to Device' is displayed in Windows Media Player 10.



For more information refer to the Help menu of Windows Media Player 10.



- To cancel the synchronization process while it is underway, press **ENTER** on the remote control. The Connect PC screen is closed.
- If synchronization fails, make sure that the Pioneer. HDD/DVD-Recorder device is selected at the synchronization screen of Windows Media Player 10, and try again.

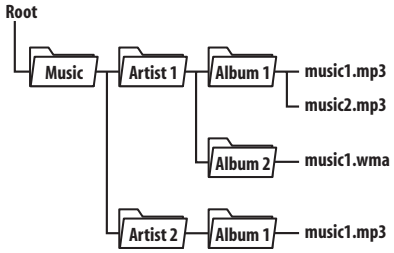
7 When you have finished copying files, close Windows Media Player 10 on the PC.

8 ENTER Close the import screen on this device.

- If no actions are carried out for 20 minutes after copying, the import screen is automatically closed.

Note

- When using the sync function of Windows Media Player 10, music, artist and album folders are created as follows:



- Folders containing no files are not displayed in the Jukebox (such as the above 'Artist1' and 'Artist2' folders), but do count toward the maximum of 999 folders allowed in Jukebox.
- Up to 999 tracks can be included in one album. Note that when there are many tracks contained in one album, it may take time to display and transfer these tracks.
- Albums and tracks with no set name that are transferred from CD/DVD/USB are displayed as 'UnknownAlbum' and 'UnknownFile' in Windows Media Player 10.
- Album and track names that do not conform to the ISO8859-1 standard may display differently in Windows Media Player 10 and the Jukebox.
- When albums are deleted in the Jukebox, their file hierarchy as displayed in Windows Media Player may change.
- File whose extensions are not supported by the Jukebox (i.e. files that are not .mp3 or .wma) cannot be transferred.
- Files imported to this recorder via Connect PC cannot be exported from this recorder.
- Note that no recording functions, including timer recordings, will be carried out when you are using the Connect PC function.

Playing music from the Jukebox

You can select albums or individual tracks from the Jukebox to play.

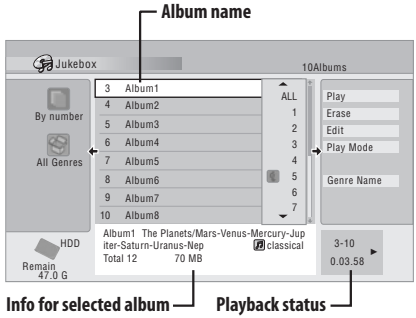
1 HOME MENU Select 'Jukebox' from the Home Menu.

2 Select a Jukebox option.

- **Listen to Music/Edit** – Listen to CDs or WMA/MP3 files that have been copied to the HDD.
 You can also access this option directly by pressing **JUKEBOX**.
- **Listen to Music from USB device** – Listen to music from an external USB device.

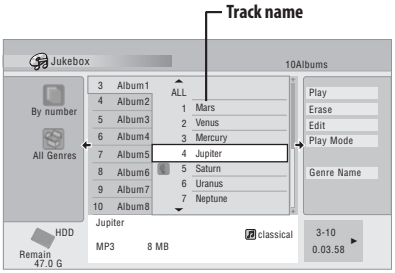
3 Select what you want to play.

The screen below shows albums stored on the HDD:



- If you select a whole album to play, all tracks that are not set to Jump will play.

- If you want to start playback from a selected track in an album, or play a track that is set to Jump, press ➡ to enter the track list then select a track to play.

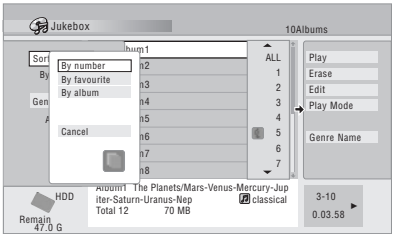


- Press **SUBTITLE** or **ANGLE** to change the page.

Changing the album view

1 **From the album list, display the view options menu panel.**

2 **Select a view option.**



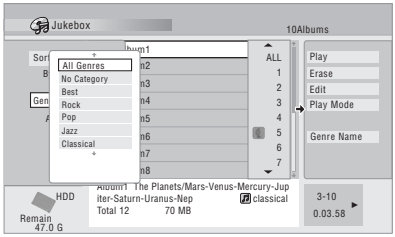
- **Sort order**

 By number – Albums are listed by the album number.

 By favourite – Most often listened to music appears at the top of the list.

 By album – Albums are listed alphabetically.

- **Genre**



All Genres – All albums are displayed.

Genre – Only albums in the selected genre are displayed.

Editing Jukebox albums

A number of commands are available for editing and changing the playback behavior of albums.

1 **Press to display the Jukebox screen.**

2 **Select what you want to edit.**

3 **Select an edit function from the command menu panel.**

- **Erase** – Erase the selected track (if all tracks in an album are selected, the whole album is erased).
- **Edit > Album name** – Enter a name of up to 64 characters for the album. See *Title Name* on page 107 for how to enter names.
- **Edit > Track name** – Enter a name of up to 64 characters for the track. See *Title Name* on page 107 for how to enter names.
- **Edit > Set Genre** – Set or change the genre for the album.
- **Edit > Jump Set**[1] – Set a track to jump so that it doesn't play (choose this command again to cancel the Jump setting).
- **Play Mode** – Change the playback order for albums and tracks.
- **Genre Name** – Enter a name of up to 12 characters for a genre. See *Title Name* on page 107 for how to enter names.

Note

1 Tracks set to Jump will be skipped during consecutive track playback.

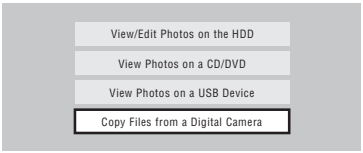
Chapter 12
The PhotoViewer

From the PhotoViewer you can view JPEG photos and picture files stored on the HDD, recordable DVD or CD-R/-RW/-ROM, or on a USB-equipped digital camera.[1] You can also import files and save them to the recorder's HDD or a DVD-R/-RW disc.

Locating JPEG picture files

1 HOME MENU **Select 'PhotoViewer' from the Home Menu.**

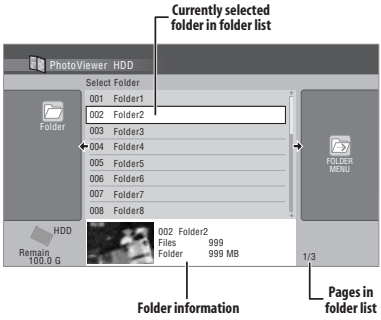
2 **Select the location of the files you want to view or edit.**



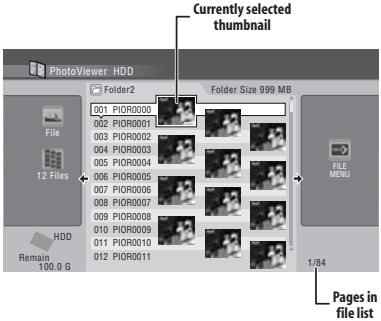
- **View/Edit Photos on the HDD** – View or edit photos already stored on the recorder's HDD.
- **View Photos on a CD/DVD** – View photos on a Fujicolor CD, CD-ROM, CD-R/-RW, or DVD-R/-RW.
- **View Photos on a USB Device** – View photos on a digital camera (or other USB device) connected to the USB port.
- **Copy Files from a Digital Camera** – Copy all DCF files directly from a connected digital camera to a recordable DVD-R/-RW.

3 **Select the folder containing the files you want to view, copy or edit.**

The first image from the selected folder is displayed as thumbnail at the bottom of the screen. From the Folder Information column, you can change thumbnails via the ◄◄/►► buttons.



4 **Select the file you want to view, copy or edit.**



- The larger the file size, the longer it takes the recorder to load the file.
- You can change folders via the ◄◄/►► buttons.
- If you encounter a disc that will not play, check that the disc and file formats are compatible with this recorder (see *JPEG file compatibility* and *PC-created disc compatibility* on page 46).
- The thumbnail of files that cannot be played is displayed as the ⚠ logo.

Note

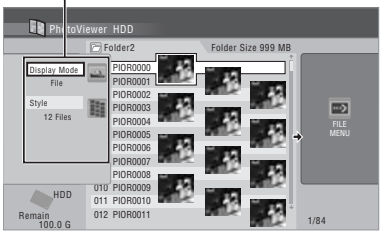
1 Up to 999 files or 99 folders are viewable, but if there are more files/folders than this on the disc or connected USB camera it is still possible to view them all using the Reload function (see *Reloading files from a disc or USB device* on page 127).

Changing the display style of the PhotoViewer

You can choose to display photos by grouping them by folder, file, or number of thumbnails.

1 **Display the View Options panel.**

The View Options panel



2 **Choose 'Display Mode' or 'Style' then press ENTER to see the available view options.**

- **Display Mode** – Choose between folder and file display modes.
- **Style** – Choose between displays of 1, 4 and 12 thumbnails.

3 **Choose a view option, then press ENTER.**

The display mode will change to that which you have chosen.

Playing a slideshow

1 **Select a folder from the folder list.**

To start the slideshow from the first file in the folder, skip to step **3** after choosing the desired folder and pressing ➡.

2 **Select a thumbnail.**

- Use I◄◄ **PREV** and ►►I **NEXT** to display the previous/next page of thumbnails.

3 **Select 'Start Slideshow' or 'Start Audio Slideshow' from the menu.**

When you select 'Start Audio Slideshow', you are prompted to select the Genre of music you would like to hear, and when you press **ENTER**, music of that Genre stored on the Jukebox will be played during the slideshow.

For more information on adding music to the HDD, see *Using the Jukebox* on page 121.

- You can also select a file or folder then press ► **PLAY** to start playing the slideshow.
- Use I◄◄ **PREV**/►►I **NEXT** to display the previous/next picture, or **II PAUSE** to pause the slideshow.
- Depending on the aspect ratio, some pictures may be displayed with black bars top and bottom, or left and right.
- Large picture files may take a few seconds to display. This is normal.

4 **Press to return to the thumbnail.**

- You can also use the **RETURN/EXIT** button.

5 **Press to exit the PhotoViewer.**

Zooming an image

During a slideshow you can zoom in to enlarge a portion of the picture by a factor of two or four. You can also move the area of the picture displayed.

1 ENTER Press during the slideshow to zoom the picture.
Repeated presses cycle between zoom off, 2x zoom and 4x zoom. The zoom factor is displayed on-screen.

2 Use to move the zoomed area.

Rotating an image

You can rotate the displayed picture during a slideshow so you can always view pictures the right way up, whichever way they were taken.

- MAIN/SUB + ANGLE **Press during the slideshow to rotate the displayed picture clockwise by 90º.**
Press repeatedly to continue rotating the picture in increments of 90º.

Reloading files from a disc or USB device

If you have a disc with more than 1000 files and/or 100 folders, you can still view all the images using the reload function.

1 Navigate to the last entry in the folder list ('Read next: ...').

2 ENTER Load the next batch of up to 999 files/99 folders from the disc or connected USB device.
It will take a moment (at most a few minutes) to load in the images.[1]

Importing files to the HDD

You can import files and save them to the HDD[2] from a CD, DVD or a connected USB camera. Once on the HDD you can edit and organize your pictures and print them out if you've connected a PictBridge-compatible printer.

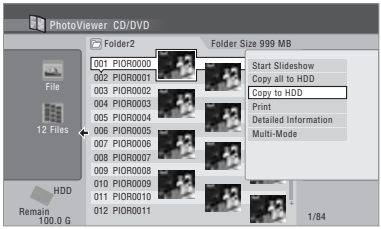
1 Select the location of folders/files you want to import.
To import a whole folder, select the desired folder, press ➡, and skip to step **3** below.

- To import multiple folders, use the Multi-Mode; see *Selecting multiple files or folders* on page 128.

2 Select a file to import, then press ➡.

- To import multiple files, use the Multi-Mode; see *Selecting multiple files or folders* on page 128.

3 Select 'Copy to HDD' from the menu.



4 Select 'Yes' to confirm and copy the folder(s)/file(s), or 'No' to cancel.

- The files will be copied to the HDD with the same folder structure as the original.
- Importing to the HDD will not work if there is insufficient space on the HDD, or if there are already the maximum number of files and/or folders on the HDD (999 folders/999 files per folder).

Note

1 You can press **HOME MENU** to exit the PhotoViewer screen while the recorder is reloading images. (If you enter the PhotoViewer again, it will resume reloading.)
2 For files you want to keep permanently, we recommend backing up to DVD-R/-RW.

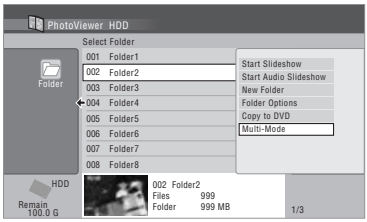
Selecting multiple files or folders

The Multi-Mode allows you to select multiple folders/files at once for importing or editing.

1 Select the folder containing the files you want to import.

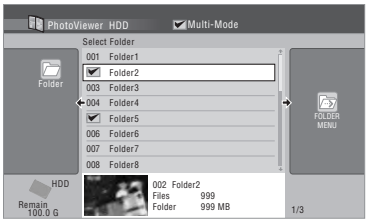
2 Display the command menu.

3 Select 'Multi-Mode' from the menu.



4 Select files/folders from the list.

An orange check mark box(☑) is shown by the item you selected. A blue check mark box (☑) appears on the folder select screen when files from that folder are selected.



5 Display the command menu.

6 Select the command you want to apply to all the selected items.

Copying files to a DVD-R/-RW

Using this feature you can copy all the files[1] (including audio and movie files) stored on a connected USB camera to a recordable DVD disc.

A slideshow of the files is also recorded on the disc as a Video mode title, making it possible to view the photos on other DVD players/recorders that may not be compatible with JPEG file playback.

Once the files have been copied, the disc is automatically finalized.

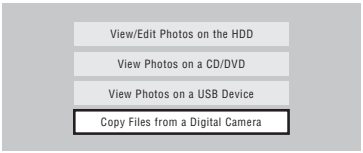
Important

- Use a blank DVD-R/-RW disc, or one that has already been initialized for Video mode recording but has nothing yet recorded on it. Discs that have already been recorded on (as well as CD-R/-RW discs) cannot be used.
- After backing up the pictures in your digital camera to DVD, we recommend verifying that they have been recorded properly before deleting anything from the camera.

1 Press HOME MENU and select 'PhotoViewer' to display the PhotoViewer screen.

2 Load a blank (or unrecorded Video mode) DVD-R or DVD-RW disc.

3 Select 'Copy Files from a Digital Camera' from the menu.



4 Select 'Yes' to confirm, or 'No' to cancel.

- Note that during copying, any timer programmes set to start will not begin, and no other operations are possible.

Note

1 • There is a limit to the number of files/amount of data that you can copy at one time.
• Only DCF format files in DCIM folders can be copied to a recordable DVD-R/-RW.

Copying selected files to a DVD-R/-RW

This feature allows you just to copy some of the files stored on HDD to a DVD.

A slideshow of the files is also recorded on the disc as a Video mode title, making it possible to view the photos on other DVD players/recorders that may not be compatible with JPEG file playback. Note however that you may need to finalize the disc before it will play on another DVD player (copying selected files doesn't automatically finalize the disc).

Important

- A maximum of 99 slideshow titles can be recorded.
- One slideshow title can contain up to 99 files. If there are more files than this in the slideshow, multiple slideshows are created on the disc.
- If you erase a slideshow title from a DVD the slideshow will not become unplayable but the free space will not increase.

1 Load a blank (or unfinalized Video mode) DVD-R or DVD-RW disc.

2 Select 'View/Edit Photos on the HDD' from the menu.

3 Select the file(s) or folder(s) you want to copy.

- Copying a folder will copy all the files contained in it.
- To copy multiple folders, use the Multi-Mode; see *Selecting multiple files or folders* on page 128.

4 Select 'Copy to DVD' from the menu.

5 Select 'Yes' to confirm or 'No' to cancel.

- Folder names on the disc will be *number* **PIONR**. File names will be **PHOT** *number*.
- Note that during copying, any timer programmes set to start will not begin, and no other operation is possible.
- While **'Cancel'** is displayed, you can press **ENTER** to cancel.

Editing files on the HDD

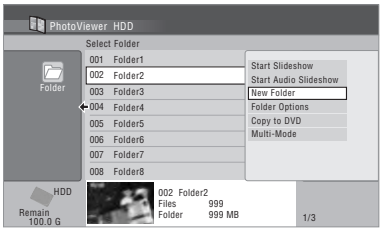
There are a number of commands you can use to edit and organize your pictures stored on the HDD.

Creating a new folder

1 From the folder list, display the menu.

2 Select 'New Folder'.

The folder appears at the bottom of the folder list with the name **F**_*number*.



- There can be up to 999 folders on the HDD.

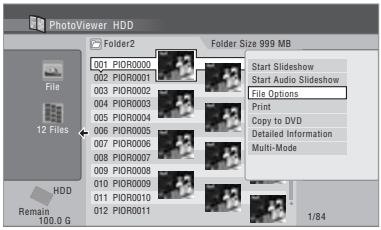
Erasing a file or folder

1 Select the file(s) or folder(s) you want to erase.

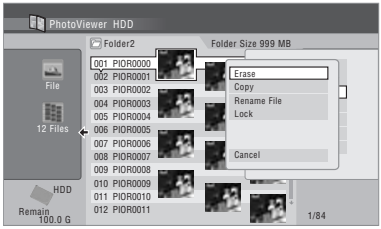
- To erase multiple files or folders, use the Multi-Mode; see *Selecting multiple files or folders* on page 128.
- Erasing a folder will erase all the files contained in it. Please be careful!
- You can't erase files that have been locked.
- Folders containing locked files can't be erased. Unlocked files in the folder, however, will be erased.

2 Display the command menu.

3 **Select ‘File Options’ or ‘Folder Options’.**



4 **Select ‘Erase’ or ‘Erase Folder’.**



5 **Select ‘Yes’ to confirm, or ‘No’ to cancel.**

- You can also erase a file or folder by pressing **CLEAR** when the file or folder is highlighted. Press **ENTER** to confirm.

Copying files

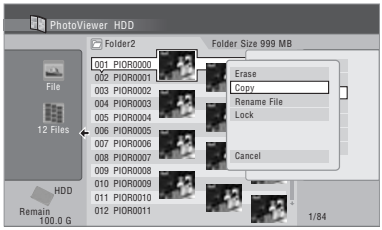
1 **Select the file(s) or folder(s) you want to copy.**

- Copying a folder will copy all the files contained in it.
- To copy multiple files or folders, use the Multi-Mode; see *Selecting multiple files or folders* on page 128.

2 **Display the command menu.**

3 **Select ‘File Options’ or ‘Folder Options’.**

4 **Select ‘Copy’ or ‘Copy Folder Contents’.**



5 **Select a folder to copy the folder(s)/ file(s) to.**

6 **Select ‘Yes’ to confirm, or ‘No’ to cancel.**

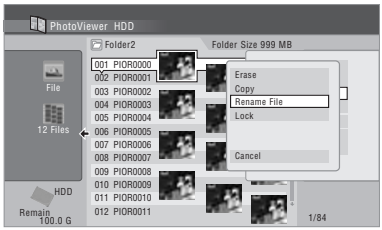
- Copying to the HDD will not work if there is insufficient space on the HDD; if there already the maximum number of files and/or folders on the HDD.

Naming files and folders

1 **Select the file or folder you want to rename.**
You can't rename files that have been locked.

2 **Select ‘File Options’ or ‘Folder Options’.**

3 **Select ‘Rename File’ or ‘Rename Folder’.**



4 **Enter a new name for the file/folder.**
File names or Folder names can be up to 64 characters long.

See *Using a USB keyboard to enter a name* on page 107 for how to enter a name.

Locking/Unlocking files

Locking files will protect them from accidental erasure and prevent them from being renamed.

Use the same process to both lock and unlock files. Locked files are displayed in the PhotoViewer with a padlock icon.

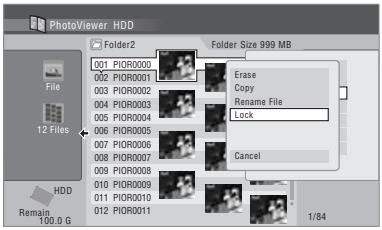
1 Select the file(s) you want to lock (or unlock).

- To lock/unlock multiple files or folders, use the Multi-Mode; see *Selecting multiple files or folders* on page 128.

2 Display the command menu.

3 Select 'File Options' or 'Folder Options'.

4 Select 'Lock' or 'Lock Folder Contents'.



Locked files are shown with a padlock icon next to them. To remove all locks within a given folder, choose **'Folder Option' > 'Unlock Folder Contents'**.

To view detailed information

This feature allows you to check the settings of the camera from which you imported the photos.

1 Choose the file for which you would like to see detailed information.

2 Choose 'Detailed Information'.

When no detailed information is available, nothing is displayed.

Printing files

Connecting a PictBridge-compatible printer to the USB port will enable you to print out picture files[1] stored on the HDD, a CD/DVD, or directly from a digital camera.

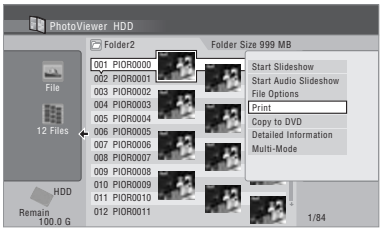
Make sure that the printer (and your digital camera if you are using that as a source) is connected to the recorder before starting.

1 Select the file(s) you want to print.

- To print multiple files, use the Multi-Mode; see *Selecting multiple files or folders* on page 128.

2 Display the command menu.

3 Select 'Print' from the menu.



4 Select 'Start' to confirm, or 'Cancel' to cancel.

- Once printing has started, you can cancel by pressing **ENTER**.

Tip

- Paper size and layout can be set; the options available depend on your printer — check the printer manual for details.
- This recorder may not work correctly with all printers.

Note

1 Picture files should be standard DCF format. Non-standard files may not print properly.

Chapter 13

The Disc Setup menu

From the Disc Setup menu you can name discs, lock the contents to prevent accidental recording and erasure, initialize and finalize discs. The Disc Setup menu is accessed from the Home menu.

Basic settings

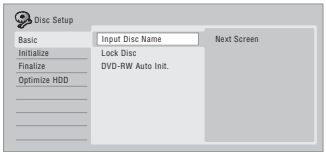
Input Disc Name

DVD (VR) DVD (Video) DVD+R DVD+RW DVD-RAM

When you initialize a disc for recording, the recorder automatically assigns a name for the disc ranging from **DISC 1** to **DISC 99**. You can use the Input Disc Name function to change the default disc name to something more descriptive. This name appears when you load the disc and when you display disc information on-screen.

1 HOME MENU **Select 'Disc Setup' from the Home Menu.**

2 ENTER **Select 'Basic' > 'Input Disc Name' > 'Next Screen'.**



3 ENTER **Input a name for the disc.**

The disc name can be up to 64 characters long for a VR mode disc, or 40 for a Video mode discs and DVD+R/+RW.

- See *Title Name* on page 107 for more on navigating the input screen.

Lock Disc

DVD (VR) DVD-RAM

- Default setting: **Off**

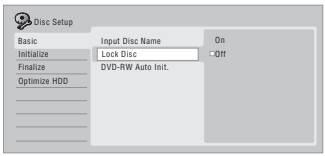
Locking the disc will prevent accidental recording, editing or erasing of the disc.

Important

- A locked disc can still be initialized (which will completely erase the disc).

1 HOME MENU **Select 'Disc Setup' from the Home Menu.**

2 ENTER **Select 'Basic' > 'Lock Disc' then 'On' or 'Off'.**



Set to **On** to prevent accidental recording, editing or erasing of the disc loaded. If you need to unlock the disc to make edits, select **Off**.

DVD-RW Auto Initialize

DVD-RW

- Default setting: **VR Mode**

Initialization mode is automatically carried out when you insert a blank DVD-RW. You must set the desired initialization mode before inserting a disc.

See *DVD-RW Auto Initialize* on page 90 for detailed instructions.

Initialize settings

DVD-R DVD-RW DVD+RW DVD-RAM

You can initialize a recordable DVD-R/-RW disc for either VR mode or Video mode recording.

The first time you load a new DVD-RW disc, it will be automatically initialized for recording according to the DVD-RW Auto Init. setting in the Disc Setup menu (see page 90).

New DVD-R discs are ready for Video mode recording when you load them, but it is also possible to initialize them for VR mode recording.[1]

Note

1 Once initialized for VR mode recording it is not possible to re-initialize the disc for Video mode recording. Also, once recorded in Video mode, the disc cannot be re-initialized for VR mode recording.

DVD+RW and DVD-RAM discs can also be initialized as a way of erasing the entire disc. When initializing a DVD -RAM disc, select VR mode.

See *Initializing recordable DVD discs* on page 89 for detailed instructions.

Finalize settings

Finalize

DVD-R DVD-RW DVD+R DVD+RW

Finalizing 'fixes' the recordings in place so that the disc can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive.

It is also possible to finalize DVD+RW discs. This is only necessary if you want to a player to display a title menu for the disc.

See *Playing your recordings on other DVD players* on page 88 for detailed instructions.

Undo Finalize

DVD-RW

You can undo the finalization on DVD-RW discs recorded on this recorder in Video mode. You need to do this if you want to record more material or edit material already on the disc.

You can also undo the finalization of VR mode discs which have been finalized on other DVD recorders. If when you load a disc the message **This disc cannot be recorded. Undo the finalization.** is displayed, use this command to be able to record on the disc using this recorder.

1 HOME MENU **Select 'Disc Setup' from the Home Menu.**

2 **Select 'Finalize' > 'Undo Finalize' then 'Start'.**

Optimize HDD

HDD

As you record, erase and edit recordings, the HDD file system gradually becomes fragmented. Periodically, the HDD will need optimizing to 'clean up' all the fragmented files.

When the HDD needs optimizing the recorder will automatically display a message recommending optimization.

Important

- Optimizing the HDD can take as long as eight hours. During optimization, playback and recording are not possible.
- Cancelling optimization mid-way does not undo the optimization already done, so the HDD will be partly optimized.

1 HOME MENU **Select 'Disc Setup' from the Home Menu.**

2 **Select 'Optimize HDD' then 'Start'.**



A progress bar indicates how long there is left to go. If no actions are carried out for more than 20 minutes after the optimization process is completed, the unit turns itself off.

Initialize HDD

HDD

When your HDD/DVD recorder is working without a problem this option is not visible in the Disc Setup menu. However, if the HDD file system becomes corrupted for some reason, you can initialize the HDD to fix the problem. Note that initializing the HDD will erase all the data on it.

1 HOME MENU **Select 'Disc Setup' from the Home Menu.**

2 **Select 'Initialize HDD' then 'Start'.**



Chapter 14

The Video Adjust menu

Using the Video Adjust menu you can set up the picture quality for the built-in tuner and external inputs, for disc playback, and for recording.

Setting the picture quality for TV and external inputs

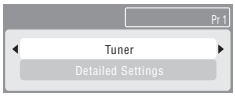
Picture Creation lets you choose a set of picture quality settings for the built-in TV tuner[1] and for each external input. There are several preset settings that suit various sources, or you can create up to three of your own sets.

Choosing a preset

1 HOME MENU With the recorder stopped, press to display the Home Menu.

2 Select 'Video Adjust'.

3 Select a preset.



- Use the **VIDEO IN** button to switch between the built-in TV tuner and the external inputs.
- Use the **Smart Jog** to change the channel of the built-in TV tuner.

There are six presets available:

- **Tuner** – suitable for general TV broadcasts
- **VCR** – suitable for video cassettes
- **DTV/LDP** – suitable for digital broadcasts and Laserdiscs
- **Memory1** – user preset 1
- **Memory2** – user preset 2
- **Memory3** – user preset 3

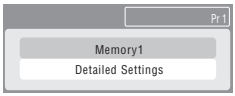
You can press **DISPLAY** to see the individual settings for the current preset (**Tuner**, **VCR** or **DTV/LDP**).

Creating your own set

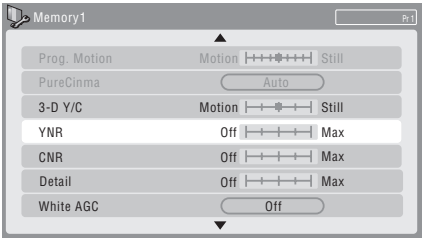
There are three user presets in which you can save your own set of picture quality settings.

1 Follow *Choosing a preset* above and select one of the user presets (Memory 1, 2 or 3).

2 Select 'Detailed Settings'.



3 Select the setting you want to adjust.



You can adjust the following settings:

- **Prog. Motion** – Adjusts the motion and still picture quality when video output is set to progressive.
- **PureCinema** – This setting optimizes the picture for film material when the video output is set to progressive. Usually set to **Auto**; but try switching to **Off** if the picture appears unnatural.
- **3-D Y/C** – Adjusts the brightness/colour separation.
- **YNR** – Adjusts the amount of noise reduction (NR) applied to the Y (brightness) component.
- **CNR** – Adjusts the amount of noise reduction (NR) applied to the C (colour) component.
- **Detail** – Adjusts how sharp edges appear.
- **White AGC** – Turn on for automatic white level adjustment.
- **White Level** – Adjusts the intensity of white.

Note

1 When the **Component Video Out** (see page 139) is set to **Interlace**, the settings for the digital tuner cannot be changed.

- **Black Level** – Adjusts the intensity of black.
- **Black Setup** – Corrects the standard reference black level (525 Input Line System only).
- **Hue** – Adjusts overall balance between red and green.
- **Chroma Level** – Adjusts how rich the colours appear.

4  **Adjust the currently selected setting.**

5 HOME MENU **Press to exit.**

You can now use the preset for any other input or the built-in TV tuner.

Tip

- To see more of the picture as you adjust different settings, press **ENTER** after selecting the setting you want to adjust.

Setting the picture quality for disc playback

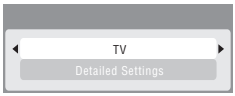
This setting determines how the picture will look when playing discs.

Choosing a preset

1 HOME MENU **With a disc playing (or paused), press to display the Home Menu.**

2  **Select 'Video Adjust'.**

3  **Select a setting.**



There are six presets available:

- **TV** – suitable for LCD and cathode-ray tube TVs
- **PDP** – suitable for plasma display screens
- **Professional** – suitable for professional monitors
- **Memory1** – user preset 1
- **Memory2** – user preset 2
- **Memory3** – user preset 3

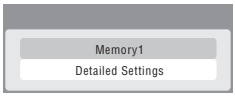
You can press **DISPLAY** to see the individual settings for the current preset (**TV**, **PDP** or **Professional**).

Creating your own set

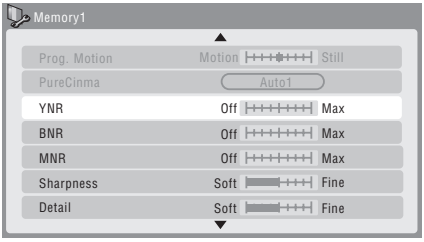
There are three user presets in which you can save your own set of picture quality settings for disc playback.

1 Follow *Choosing a preset* **above and select one of the user presets (Memory 1, 2 or 3).**

2 Move the cursor down and select 'Detailed Settings'.



3 Select the picture quality setting you want to adjust.



You can adjust the following settings:

- **Prog. Motion** – Adjusts the motion and still picture quality when video output is set to progressive. (Prog. Motion is ineffective when PureCinema is On.)
- **PureCinema** – This setting optimizes the picture for film material when the video output is set to progressive. Usually set to **Auto 1** but try switching to **Auto 2**, **On** or **Off** if the picture appears unnatural.
- **YNR** – Adjusts the amount of noise reduction (NR) applied to the Y (brightness) component.
- **BNR** – Adjusts the amount of noise reduction (NR) applied to the block noise (artefacts visible in areas of flat colour, caused by MPEG compression).
- **MNR** – Adjusts the amount of noise reduction (NR) applied to the mosquito noise (artefacts visible around the edges of an image, caused by MPEG compression).
- **Sharpness** – Adjusts the sharpness of the high-frequency (detailed) elements in the picture. Sharpness is ineffective for HDMI output.
- **Detail** – Adjusts how sharp edges appear.
- **White Level** – Adjusts the intensity of white. White Level is ineffective for HDMI output.
- **Black Level** – Adjusts the intensity of black. Black Level is ineffective for HDMI output.
- **Black Setup** – Corrects the standard reference black level. Black Setup is ineffective for HDMI output.
- **Gamma Correction** – Adjusts the brightness of darker images. Gamma Correction is ineffective for HDMI output.
- **Hue** – Adjusts overall balance between red and green. Hue is ineffective for HDMI output.
- **Chroma Level** – Adjusts how rich the colours appear. Chroma Level is ineffective for HDMI output.

4 Use the ⬅/➡ buttons to adjust the currently selected picture quality setting.

5 When you have all the settings as you want them, press HOME MENU to exit.

Tip

- To see more of the picture as you adjust different settings, press **ENTER** after selecting the setting you want to adjust.

Chapter 15
The Initial Setup menu

Using the Initial Setup menu

The Initial Setup menu is where you can set various recorder options for sound, picture, language and so on.

Some settings can only be changed when the recorder is stopped. During playback and recording these settings are grayed out in the Initial Setup menu.

Except for the Setup Navigator, menu screens are exited automatically after 20 minutes of inactivity.

- **Press HOME MENU and select 'Initial Setup'.**

In the table below, the default option is marked with a •.

Setting	Options	Explanation
Basic		
Clock Setting	**Auto**	Set the channel that broadcasts a clock signal and the clock will be set automatically.
	Manual •	If there is no channel that broadcasts a clock signal in your area, you can set the time and date manually.
• If any digital TV channels are set then the clock will automatically be set. *• The clock must be set in order to use timer recording.*		
Input Line System	**525 System**	Use for NTSC or PAL-60 recording from an external input.
	625 System •	Use for standard PAL or SECAM recording.
• This setting is applicable only when recording from an external input. *• See also About the input line system on page 146 for more information on this setting.*		
Power Save	**Mode 1**	Only signals arriving at the antenna input are passed through to the antenna output when the recorder is in standby.
	Mode 2	No input signals are passed through to the outputs when the recorder is in standby.
	Off •	When the recorder is in standby, all signals arriving at the SCART and antenna inputs are passed along to the outputs.
HELP Setting	**On** •	Switches on the automatic Help screens for GUI displays.
	Off	Switches off the automatic Help screens for GUI displays. (Press **HELP** on the remote to manually display the Help screen.)
EPG Type Select	**GUIDE Plus+**	Use the Gemstar GUIDE Plus+ EPG.
	Digital EPG	Use the EPG based on information provided by D.TV broadcasts.
Setup Navigator	**Start**	Select to start the Setup Navigator. See also *Switching on and setting up* on page 56.
Digital Tuner		
Replace Channels	**Next Screen**	Scans for digital channels and replaces all the channel presets with the results. Before the scan starts you will need to select your country. After the scan is complete the recorder tells you whether any new channels were found, and if so, how many. (You can cancel the scan before it has finished by pressing **HOME MENU** or **RETURN/EXIT**. In this case, no channels are set.)
If you execute a Replace Channels command, any timer recordings set for D.TV channels will be erased.		

Setting	Options	Explanation
Add New Channels	**Next Screen**	Automatically scans for new digital channels. After the scan is complete the recorder tells you whether any new channels were found, and if so, how many. (You can cancel the scan before it has finished by pressing **HOME MENU** or **RETURN/EXIT**. In this case, no new channels are set.)
Channel Sort	**Next Screen**	Use this screen to sort channel presets into your prefered order. Use the ⬆/⬇/⬅/➡ buttons to highlight the channel you want to move, press **ENTER**. Use the cursor buttons again to highlight the position you want to move the channel preset to, then press **ENTER** again. (If there are more channel presets than will fit on one screen, you can select the next/previous page by highlighting the small triangular marks and pressing **ENTER**.)
Channel Options	**Next Screen**	From this screen you can skip or lock channels. Locked channels will require the correct password to be entered before the channel can be watched. Use the ⬆/⬇/⬅/➡ buttons to highlight a preference box and press **ENTER** to toggle the preference. To enter this screen, input the parental lock password when prompted (if one has not yet been set then the password you enter becomes the parental lock password).
Auto Skip	**Off** •	No channels are automatically skipped.
	Radio	Radio channels are skipped when selecting channels.
	Data	Data channels are skipped when selecting channels.
	Radio & Data	Radio and data channels are skipped when selecting channels.
Signal Check	**Next Screen**	Use this screen to check the signal level and quality of digital channels. Use the ⬅/➡ buttons to change the RF channel; select **Add New Channels** then press **ENTER** to scan for new channels; press **HOME MENU** to exit.
Aerial Power	**On**	Power is supplied to the connected aerial (antenna) when this recorder is on or in standby.
	Auto	Power is supplied to the connected aerial (antenna) only when this recorder is on.
	Off •	This recorder does not supply power to the connected aerial (antenna).
• If the setting keeps reverting to **Off** *when you try to set to* **On** *or* **Auto**, *the aerial may not be connected properly, or it may be shorted. In either case, check the connection and try making the setting again.*		
D.TV Language	**Next Screen**	From this screen you can set your Primary and Secondary Audio preference for multilingual digital broadcasts, your Primary and Secondary Subtitle preference for programmes that are broadcast with subtitles, and your Teletext language preference. Use the ⬆/⬇ buttons to highlight a field then use the ⬅/➡ buttons to change it.

Setting	Options	Explanation
Analog Tuner		
Auto Channel Setting	**Auto Scan**	Select your country and then wait for the recorder to auto tune into channels in your area. After auto scan has finished, the channel mapping screen appears showing which channels have been assigned to which programme numbers. You can skip unwanted channels using the Manual CH Setting option below. Press **HOME MENU** to exit the channel mapping screen.
	Download from TV	If your TV supports this feature you can download all the channels that your TV is tuned to via the SCART input. Select your country and then wait for the download to complete. After the download is complete, the channel mapping screen appears, as above. See also the operating instructions that came with your TV for more information.
Manual CH Setting	**Next Screen**	Proceed to the next screen if you need to adjust any of the settings made by auto tuning. Select your country, then proceed to the manual channel setting screen: • Change channel presets using the **Smart Jog**. • To skip the displayed channel (because there is no station assigned to that channel), change the **Skip** setting to **On**. • Set the **CH SYSTEM** setting to match the channel system of your country or region. • Set the **CHANNEL** setting to the channel you want to assign to the current channel preset. • To manually fine tune the channel, change the **AFT** setting to **Off** then adjust the **Level** setting. • Set the **Sound System** setting to match the sound system of your region. • The **Name** field allows you to input a name of up to five characters for the current channel preset. • If the currently selected channel is scrambled requiring a decoder connected to the **AV2 (INPUT 1/DECODER)**, set the **Decoder** setting to **On**.
Channel Swapping	**Next Screen**	Proceed to the next screen to swap channel assignments of different presets so that you can group together presets that naturally go together. Select two presets to swap then press **ENTER**.
Video In/Out		
Input Colour System	**Next Screen**	Proceed to the next screen to set the input colour system for the external input and the built-in TV tuner. Use the **Smart Jog** or **VIDEO IN** buttons to change the preset or external input. On the default **Auto** setting the recorder can generally correctly detect whether the input signal is PAL, SECAM, 3.58 NTSC or PAL-60, but in some cases you may have to set it manually if the picture is displayed incorrectly.
• Input Colour System cannot be set when the recorder is in D.TV mode. *• See also About the input colour system on page 146 for more information on this setting.*		
Component Video Out	**Interlace •**	Select if your monitor/TV is not compatible with progressive-scan video.
	Progressive	Select if your monitor/TV is progressive-scan compatible. Check the operating instructions that came with your monitor/TV if you're not sure.
• For Component Video Out to be effective, the AV1 Out setting (see page 140) must be set to something other than **RGB**. *• If your TV is incompatible with progressive scan video and you select* **Progressive**, *you will not be able to see any picture at all. In this case, press* ⏏ **OPEN/CLOSE** *while holding down the* ■ *(Stop) button on the front panel to switch to* **Interlace** *(this also switches Screen Resolution on page 144 to the default setting).* *• When the HDMI signal is output, no video is output from the* **COMPONENT VIDEO OUT**.		

Setting	Options	Explanation
AV1 Out	**Video** •	Sets the **AV1 (RGB)-TV** SCART output to standard composite video (compatible with all TVs).
	S-Video	Sets the **AV1 (RGB)-TV** SCART output to S-video. Recommended if you are using a long SCART cable.
	RGB	Sets the **AV1 (RGB)-TV** SCART output to RGB. Good quality but check your TV for compatibility. Note that on this setting signals from the built-in tuner and from external inputs is not output when the recorder is in TV mode.
• *If you choose a setting that is incompatible with your TV you may not be able to see any picture at all. In this case either switch off and reconnect using the supplied video cable, or reset the recorder (see Resetting the recorder on page 161).* • *The Component Video Out setting (see page 139) has no effect when AV1 Out is set to* **RGB**. • *When the HDMI signal is output, the AV1 Out outputs the composite video signal even when it is set to* **RGB**.		
AV2/L1 In	**Video** •	Sets the **AV2 (INPUT 1/DECODER)** SCART input to standard composite video.
	S-Video	Sets the **AV2 (INPUT 1/DECODER)** SCART input to S-video.
	RGB	Sets the **AV2 (INPUT 1/DECODER)** SCART input to RGB.
	Decoder	Use this setting if you connected a decoder to the **AV2 (INPUT 1/DECODER)** SCART connector. For scrambled channels, make sure that the channel **Decoder** setting is set to **On**. (See *Manual CH Setting* on page 139.)
NTSC on PAL TV	**On** •	NTSC discs will play correctly on PAL-only TVs.
	Off	Use if your TV is already NTSC-compatible.
Many recent PAL TVs are compatible with NTSC input and so this setting can be switched off. Check the operating instructions that came with your TV. See also About NTSC on PAL TV on page 146 for related information.		
Audio In		
NICAM Select	**NICAM** •	Record the NICAM audio in a NICAM broadcast.
	Regular Audio	Record the non-NICAM audio in a NICAM broadcast. (You can still switch the audio to record using the **AUDIO** button before recording.)
Analog Tuner Level	**Normal** •	Standard setting.
	Compression	Use if the audio level from the built-in tuner is excessive, causing distortion.
External Audio	**Stereo** •	Select if the audio from the currently selected external input is standard stereo.
	Bilingual	Select if each channel carries a separate soundtrack.
When the external audio is from the DV input, an audio subcode channel within the DV audio tells the recorder whether the audio is stereo or bilingual. This has priority over the setting you make here.		
Bilingual Recording	**A/L** •	Record the left (A) channel of a bilingual source when recording to HDD with HDD Recording Format set to Video Mode On, to DVD-R/-RW (Video mode) or DVD+R/+RW or in **LPCM** mode, from an external source.
	B/R	As above, but for right (B) channel recording.
When recording bilingual audio to DVD in VR mode (except in **LPCM** *mode), or to HDD with HDD Recording Format set to Video Mode Off (except in* **LPCM** *mode), both audio channels are recorded and you can switch to the one you want on playback.*		
DV Input	**Stereo 1** •	Select to use the 'live' audio track (recorded during the video shoot) from a camcorder that supports two stereo audio tracks.
	Stereo 2	Select to use the overdubbed audio track from a camcorder that supports two stereo audio tracks.
	Mix	Select one of the three settings to use a mix of the two stereo audio tracks.

Setting	Options	Explanation
Audio Out		
Dolby Digital Out	**Dolby Digital •**	Output a Dolby Digital signal when a Dolby Digital source is being played.
	Dolby Digital → PCM	Convert Dolby Digital sources to Linear PCM output. Use if your connected equipment doesn't have a Dolby Digital decoder.
DTS Out	**On •**	Output a DTS signal when a DTS source is being played.
	Off	Switch off the digital output when a DTS source is being played. Use when your connected equipment doesn't have a DTS decoder. In this case, use the analog audio outputs.
96 kHz PCM Out	**96 kHz → 48 kHz •**	Convert 96 kHz digital audio sources to 48 kHz output. Use if your connected equipment doesn't support 96 kHz sampling rate.
	96 kHz	Output 96 kHz digital audio when a 96 kHz source is being played.
MPEG Out	**MPEG**	Output an MPEG audio signal when a source using MPEG audio is being played.
	MPEG → PCM •	Convert sources with MPEG audio to Linear PCM output. Use if your connected equipment doesn't have an MPEG audio decoder.
Audio DRC	**On**	Switches on Audio DRC (Dynamic Range Control). Use when listening to Dolby Digital material at low volume.
	Off •	Switches off Audio DRC.
Audio DRC is not effective when listening via the digital output when the Dolby Digital Out setting is set to **Dolby Digital**. *In this case adjust the dynamic range from the receiver subwoofer — see Dynamic Range Control* on page 32.		
Language		
OSD Language	**English •**	Sets the language of the on-screen displays to English.
	available languages	Choose from the languages displayed for the on-screen displays.
On Screen Display and D.TV Language will both reflect this setting.		
Audio Language	**English •**	Sets the default audio language for DVD-Video playback to English.
	available languages	Choose from the languages displayed to set the default audio language for DVD-Video playback.
	Other	Select to set the default audio language to something other than the ones listed. See *Selecting other languages for language options* on page 147.
Discs do not necessarily have audio in your selected language. Also, some discs override the Audio Language preference.		
Subtitle Language	**English •**	Sets the default subtitle language for DVD-Video playback to English.
	available languages	Choose from the languages displayed to set the default subtitle language for DVD-Video playback.
	Other	Select to set the default subtitle language to something other than the ones listed. See *Selecting other languages for language options* on page 147.
Discs do not necessarily have subtitles in your selected menu language. Also, some discs override the Subtitle Language preference.		

Setting	Options	Explanation
Auto Language	**On** •	On this setting: • DVD-Video discs whose main audio track is in your default language will play using that language, without subtitles. • Discs whose main audio track is not in your default language but that have a subtitle track in your default language will play the original audio track with subtitles.
	Off	Select to play DVD-Video discs according to your audio and subtitle language preferences.
For Auto Language to be effective, the Audio Language and Subtitle Language options must be set to the same language.		
DVD Menu Language	**w/Subtitle Language** •	Sets the language of DVD-Video menus to the same as that set for the subtitle language.
	English	Sets the language of DVD-Video menus to English.
	available languages	Choose from the displayed languages to set the default language for DVD -Video menus.
	Other	Select to set the DVD menu language to something other than the ones listed. See *Selecting other languages for language options* on page 147.
Discs do not necessarily have menus in your selected menu language.		
Subtitle Display	**On** •	Select to have discs display subtitles according to your Subtitle Language and Auto Language preferences.
	Off	Select to switch off subtitle display.
	Assist Subtitle	Select to display special additional assistive subtitles, where available.
Some discs may override these settings.		
Recording		
Manual Recording	**On (go to setup)**	All the standard recording modes, plus **MN1** to **MN32**, **LPCM** and **XP+** modes can be set.
	Off •	Just the standard recording modes (**XP**, **SP**, **LP**, **EP**, **SLP** and **SEP**) can be set.
See also Manual recording modes on page 151 for detailed information on manual recording levels.		
Optimized Rec	**On**	The recording quality of timer recordings is automatically adjusted to fit on to the selected media if it will not fit at the selected quality setting. If the recording will not fit even at **MN1**(**MN4** for DVD+R/+RW), then the recording will be made to the HDD in the original quality selected.
	Off •	When a timer recording is set that won't fit on to the selected media, the recording starts but is cut off when no more recording is possible.
Optimized Rec will only compensate for the next scheduled timer recording if more than one is set. It cannot be used together with VPS/PDC.		
Subtitle Recording	**On**	The selected subtitle language is recorded with the D.TV timer recording.
	Off •	No subtitles are recorded with D.TV timer recordings.
Set Thumbnail	**0 seconds** •	Sets the default thumbnail picture in the Disc Navigator to the first frame of the title.
	30 seconds	Sets the default thumbnail picture to 30 seconds into the title.
	3 minutes	Sets the default thumbnail picture to three minutes into the title.
Auto Chapter (HDD/VR)	**On** •	When recording to the HDD or in VR mode to a DVD, chapter marks are added at the black screen between commercials and main programming. When recording in DV, chapter marks can be changed by date/time.
	Off	Automatic chapter marking is switched off.

Setting	Options	Explanation
Auto Chapter (Video)	**No Separation**	Automatic chapter marking is switched off.
	10 minutes •	When recording in Video mode, chapter markers are inserted every 10 minutes.
	15 minutes	Chapter markers are inserted every 15 minutes.
This settings applies to recording or real-time copying to Video mode DVD-R/-RW discs.		
Auto Chapter (DVD+R/+RW)	**No Separation**	Automatic chapter marking is switched off.
	10 minutes •	When recording in DVD+R/+RW or in real-time copying, chapter markers are inserted every 10 minutes.
	15 minutes	Chapter markers are inserted every 15 minutes.
HDD Recording Format	**Video Mode Off**	Recordings made to the HDD are made in VR mode. Use this setting if you don't need to transfer the recording later to a DVD-R/-RW (Video mode) or DVD+R/+RW.
	Video Mode On •	Recordings made to the HDD are compatible with Video mode recordings. This setting is convenient if you want to transfer the recording to a DVD-R/-RW (Video mode) or DVD+R/+RW as high-speed copy can be used.
• When Video Mode On is used, you must select the audio channel you want to record when recording a bilingual broadcast. On the Video Mode Off setting, both channels will be recorded and you can switch between them on playback. See also Bilingual Recording on page 140. *• When the recording mode is set to* **XP+***, you cannot change HDD Recording Format.*		
Playback		
TV Screen Size	**4:3 (Letter Box)**	Select if you have a standard 4:3 TV and prefer the letter box format presentation for widescreen material.
	4:3 (Pan & Scan)	Select if you have a standard 4:3 TV and prefer the pan and scan presentation for widescreen material.
	16:9 •	Select if you have a widescreen 16:9 TV. Your TV settings determine how 4:3 material will look.
Selecting **4:3 (Letter Box)** *or* **4:3 (Pan & Scan)** *does not guarantee that all video material will be presented in that format as some discs override this setting.*		
Still Picture	**Field**	Produces a stable, generally shake-free image.
	Frame	Produces sharp image, but may be prone to shake.
	Auto •	Generates a generally less sharp but more stable still image.
Seamless Playback	**On**	Playback is smooth, but with a trade-off against the accuracy of the edit points.
	Off •	You may notice momentary interruption at edited points during playback of a VR mode Play List.
This setting applies to HDD, DVD-R/-RW (VR) and DVD-RAM playback.		
Angle Indicator	**On •**	A camera icon appears on-screen during multi-angle scenes on a DVD-Video disc.
	Off	Nothing is indicated on-screen when a multi-angle scene is showing.
Parental Lock		
Set Password / Change Password	**Next Screen**	If no password has yet been set, enter a four digit number to become your password. If you want to change the password, first enter your old password, then enter a new one.
DVD Playback	**Next Screen**	From this screen, first enter your password and then set a parental lock level for playback of DVDs with parental level coding.

Setting	Options	Explanation
D.TV Age Limit	**Next Screen**	Use this screen to enter an age limit for D.TV programmes. Programmes that are broadcast with age suitability guidelines that fall above the age set here will require the correct password to be entered before the channel can be viewed. You must also enter your password in order to change the age limit setting.

This setting is only applicable when the country is set to France, Denmark, Finland or Sweden.

HDMI Output (only available when an HDMI device is connected)		
Screen Resolution	**1920 x 1080p**	Constant 1920 x 1080p output.
	1920 x 1080i	Constant 1920 x 1080i output.
	1280 x 720p	Constant 1280 x 720p output.
	720 x 576p (720 x 480p)	Constant 720 x 576p output (when setting the **Input Line System** to **525 System**, video is output in 720 x 480p).
	720 x 576i (720 x 480i)	Constant 720 x 576i output (when setting the **Input Line System** to **525 System**, video is output in 720 x 480i).

- *If you choose a setting that is incompatible with your TV you may not be able to see any picture at all. In this case, press* ⏏ **OPEN/CLOSE** *while holding down the* ■ *(Stop) button on the front panel to switch the setting (this also switches Component Video Out* on page 139 *to the default setting).*
- *If you have the* **Colour** *set to* **YCbCr 4:2:2***, you cannot select* **720 x 576i (720 x 480i)**.

4:3 Video Output	**Full**	Select if your HDMI TV allows you to change the aspect ratio.
	Normal	Select if your HDMI TV does not allow you to change the aspect ratio. 4:3 video will be shown with bars on each side.
Colour	**RGB (0–255)**	Use if colours are weak and black appears to 'float' on the **RGB (16–235)** setting.
	RGB (16–235)	Use this setting if colours appear overly rich and the black too deep on the **RGB (0–255)** setting.
	YCbCr 4:2:2	The video signal is output as a 10-bit YCbCr 4:2:2 component signal. This is the standard setting for HDMI-compatible devices.
	YCbCr 4:4:4	The video signal is output as a 8-bit YCbCr 4:4:4 component signal.

- *Depending on the connected device some settings may not be available.*
- *When a DVI device is connected, the* **YCbCr 4:2:2** *and* **YCbCr 4:4:4** *options are not available.*
- *You cannot choose* **YCbCr 4:2:2** *when the* **Screen Resolution** *is set to* **720 x 576i (720 x 480i)**.

Audio Output	**Auto •**	Dolby Digital, MPEG and DTS sources are output as a bitstream signal. However, depending on the **Audio Out** setting, number of audio channels, and the HDMI-connected device, Linear PCM audio may be output.
	PCM	All audio signals are converted to Linear PCM (except DTS).
	Bitstream Priority	Select if the connected device is compatible with bitstream audio.

This setting is not available when a DVI device is connected.

Options		
On Screen Display	**On •**	The recorder displays operation displays (**Stop**, **Play**, etc.) on-screen.
	Off	Switches off the on-screen operation displays.
Front Panel Display	**On •**	The time is shown in the front panel display when the recorder is in standby.
	Off	The front panel display is switched off in standby.

Setting	Options	Explanation
Remote Control Mode	**Recorder 1–3** *(default: Recorder 1)*	If you are using more than one recorder in the same room, set them to different IDs. This setting sets the recorder ID; to change the remote controller ID, press and hold **RETURN/EXIT** then press **1**, **2** or **3** to set. The remote will only control a recorder with the same ID.
AV. Link	**This Recorder Only** •	Signals received through the AV input when the recorder is in standby are not passed through to the AV output.
	Pass Through	Signals received when in standby are passed though to the output for connected devices. (Note that during EPG data download, the EPG data is not passed through.)
When set to **Pass Through**, *make sure to set Power Save (page 137) to* **Off**.		
DivX VOD	**Registration Code**	Use to display the recorder's DivX registration code. See *DivX video compatibility* and *DivX® VOD content* on page 46.
Set Preview *(HDD only)*	**Quick Preview** •	When in the Disc Navigator, the thumbnail video plays short excerpts from throughout the selected title. (Note that edited titles that will play normally from the beginning.)
	Normal	The thumbnail video plays from the beginning of the title.
CI Information	**Next Screen**	This option displays a menu of CI card functions. Consult your service provider for more information on the functions available.
Software Update	**Next Screen**	The Software Update function can check for and download updated system software for the digital tuner. See *Using Software Update (Digital tuner)* on page 147.
Options 2		
USB	**Restart USB Device**	If the connected USB device does not respond to the recorder, try using this option to restart it. If the device still does not work properly try switching it off then back on, and/or disconnecting then reconnecting the USB cable.
	Confirm Printer	Use this option to confirm the make and model of the printer connected to the recorder (does not work with all printers).
Pause Live TV	**TV's Tuner**	Allows you to use the Pause Live TV feature with an AV Link-compatible TV connected by SCART cable.
	Recorder's Tuner •	Allows you to use Pause Live TV with this recorder's internal TV tuner.
See also Pause Live TV on page 84 for more information on this setting.		
HDD Sleep Mode	**Proceed**	Puts the HDD to sleep. Using this feature when playing DVDs or CDs allows you to reduce noise produced by the unit, resulting in improved sound quality. When you wake the HDD back up it will take a few seconds to load. The HDD can be taken out of Sleep Mode by any number of actions, including: • Turning the power off and on again. • Pressing the **HDD/DVD** button and choosing the HDD. • When a timer recording begins. • When you try and make any changes to system settings.

Additional information about the TV system settings

About the input line system

This recorder is compatible with PAL, SECAM, 3.58 NTSC and PAL-60 TV systems. The Input Line System and Input Colour System settings determine how the recorder treats incoming video signals from an external input.

Please note the following points when changing the input line system:

- When the current input is a built-in tuner channel preset, changing the input line system will usually also affect the input line system of the **AV2 (INPUT 1/DECODER)** input. However if the **AV2/L1 In** setting is set to **Decoder**, then the L2 input is affected instead.
- If, when the Input Line System setting is changed, the screen goes blank (due to incompatibility with your TV), you can switch back by pressing and holding the front panel ■ (Stop) button then pressing **INPUT SELECT** (also front panel) while the recorder is stopped.
- When you switch the Input Line System setting the Copy List is erased. If you switch the setting using the ■ (Stop) button and **INPUT SELECT** buttons as described above, there is no confirmation, so please use with care.
- You can't mix recordings of different TV line systems on the same disc.
- When you change this setting, the **Input Colour System** setting also changes (see below).

About NTSC on PAL TV

Depending on the Input Line System setting and the NTSC on PAL TV setting, the signal format output when the recorder is stopped varies as shown in the table below.

Input Line System	NTSC on PAL TV	Output when stopped
625 System	**Off**	**PAL**
	On	**PAL**
525 System	**Off**	**NTSC**
	On	**PAL–60**

About the input colour system

The available options of the Input Colour System setting depend on the Input Line System setting. The table below shows the different options available.

Input Line System	Built-in analog tuner	External input
625 System	**Auto**	**Auto**
	PAL	**PAL**
	SECAM	**SECAM**
525 System	*n/a*	**Auto**
		3.58 NTSC
		PAL–60

Additional information about component video output

If you switch the Component Video Out setting to **Progressive** when using a TV that is not compatible with progressive-scan video, you will not be able to see anything displayed on your TV. If this happens, press and hold the ■ (Stop) button on the front panel, then press ⏏ **OPEN/CLOSE**. This will set the recorder's video output back to Interlace.

Selecting other languages for language options



1 Select 'Other' from the language list.

This option appears in the settings for DVD Menu Language, Audio Language, and Subtitle Language.



2 Select the language you want.



- Select by language name: Use the ⬅/➡ buttons to change the language.
- Select by code number: Press ⬇ then use the number buttons to enter the four-digit language code.

See *Language code list* on page 158 for a list of available languages and corresponding codes.

Using Software Update (Digital tuner)

The Software Update function can keep the built-in digital tuner up to date with the latest system software. You can either check for updates manually, or have the recorder do it automatically at regular intervals.

Access the Software Update screen from the Options menu.

There are three options available: Manual Update, Auto Update and Technical Information.

Manual Update

Select Manual Update to check for updated software immediately. If new software is found then it is automatically downloaded and installed. The new software will take effect the next time the recorder is powered on.

If for some reason the new software could not be downloaded successfully, a dialog box informs you of the error. Press **HOME MENU** to exit or **RETURN/EXIT** to return to the previous screen.

Note that channel information may be erased when software update is used, and that timer recording will not work during the update.

To cancel manual update before it has completed, press **HOME MENU**.

Auto Update

By default, the Auto Update option is **On**, which means that periodically the recorder will check for and update the digital tuner software if it's available. We recommend that you leave this option **On**.

If new software is found and successfully downloaded, the recorder automatically scans for new digital channels, informing you if any are found (this is the equivalent of using the Add New Channel option, found in the Digital Tuner section of the Initial Setup menu).

Technical Information

This displays the current hardware and software version numbers of the digital tuner.

Chapter 16
Additional information

Setting up the remote to control your TV

You can use the supplied remote to control your TV. To be able to use this feature you first have to program the remote with a maker code from the table on the following page.

1 Switch on your TV.

2 Press and hold down the CLEAR button, then enter the maker code for your TV.

See the table on the next page for the list of maker codes. If there is more than one code given for your make, input the first one in the list.

- If the maker's name of your TV doesn't appear in the table, you will not be able to use this remote to control your TV.

3 Point the remote towards your TV and press ⏻ TV to check that the remote works with your TV.

If the remote is set up correctly, the TV should switch off. If it doesn't and there is another code given for your maker, repeat step **1** with a new code.

Using the TV remote control buttons

The table below shows how to use this remote control with your TV.

Button	What it does
⏻ **TV**	Press to switch the TV on/off (standby)
INPUT	Press to change the TV's video input
VOLUME +/–	Use to adjust the TV volume
CHANNEL +/–	Use to change TV channels

TV Preset code list

Please note that there are cases where only certain functions may be controllable after assigning the proper preset code, or the codes for the manufacturer in the list will not work for the model that you are using.

Manufacturer Code(s)

ACURA 644
ADMIRAL 631
AIWA 660
AKAI 632, 635, 642
AKURA 641
ALBA 607, 639, 641, 644
AMSTRAD 642, 644, 647
ANITECH 644
ASA 645
ASUKA 641
AUDIOGONIC 607, 636

BASIC LINE 641, 644
BAUR 631, 607, 642
BEKO 638
BEON 607
BLAUPUNKT 631
BLUE SKY 641
BLUE STAR 618
BPL 618
BRANDT 636
BTC 641
BUSH 607, 641, 642, 644, 647, 656

CASCADE 644
CATHAY 607
CENTURION 607
CGB 642
CIMLINE 644
CLARIVOX 607
CLATRONIC 638
CONDOR 638
CONTEC 644
CROSLEY 632
CROWN 638, 644
CRYSTAL 642
CYBERTRON 641

DAEWOO 607, 644, 656
DAINICHI 641
DANSAI 607
DAYTON 644
DECCA 607, 648
DIXI 607, 644
DUMONT 653

ELIN 607
ELITE 641
ELTA 644
EMERSON 642
ERRES 607

FERGUSON 607, 636, 651
FINLANDIA 635, 643
FINLUX 632, 607, 645, 648, 653, 654
FIRSTLINE 640, 644
FISHER 632, 635, 638, 645

FORMENTI 632, 607, 642
FRONTECH 631, 642, 646
FRONTECH/PROTECH 632
FUJITSU 648, 629
FUNAI 640, 646, 658

GBC 632, 642
GE 601, 608, 607, 610, 617, 602, 628, 618
GEC 607, 634, 648
GELOSO 632, 644
GENEXXA 631, 641
GOLDSTAR 610, 623, 621, 602, 607, 650
GOODMANS 607, 639, 647, 648, 656
GORENJE 638
GPM 641
GRAETZ 631, 642
GRANADA 607, 635, 642, 643, 648
GRADIENTE 630
GRANDIN 618
GRUNDIG 631, 653

HANSEATIC 607, 642
HCM 618, 644
HINARI 607, 641, 644
HISAWA 618
HITACHI 631, 633, 634, 636, 642, 643, 654, 606, 610, 624, 625, 618
HUANYU 656
HYPSON 607, 618, 646

ICE 646, 647
IMPERIAL 638, 642
INDIANA 607
INGELEN 631
INTERFUNK 631, 632, 607, 642
INTERVISION 646, 649
ISUKAI 641
ITC 642
ITT 631, 632, 642

JEC 605
JVC 613, 623

KAISUI 618, 641, 644
KAPSCH 631
KENDO 642
KENNEDY 632, 642
KORPEL 607
KOYODA 644

LEYCO 607, 640, 646, 648
LIESENK&TTER 607
LOEWE 607
LUXOR 632, 642, 643

M-ELECTRONIC 631, 644, 645, 654, 656, 607, 636, 651
MAGNADYNE 632, 649

MAGNAFON 649
MAGNAVOX 607, 610, 603, 612, 629
MANESTH 639, 646
MARANTZ 607
MARK 607
MATSUI 607, 639, 640, 642, 644, 647, 648
MCMICHAEL 634
MEDIATOR 607
MEMOREX 644
METZ 631
MINERVA 631, 653
MITSUBISHI 609, 610, 602, 621, 631
MULTITECH 644, 649

NEC 659
NECKERMANN 631, 607
NEI 607, 642
NIKKAI 605, 607, 641, 646, 648
NOBLIKO 649
NOKIA 632, 642, 652
NORDMENDE 632, 636, 651, 652

OCEANIC 631, 632, 642
ORION 632, 607, 639, 640
OSAKI 641, 646, 648
OSO 641
OSUME 648
OTTO VERSAND 631, 632, 607, 642

PALLADIUM 638
PANAMA 646
PANASONIC 631, 607, 608,642, 622
PATHO CINEMA 642
PAUSA 644
PHILCO 632, 642
PHILIPS 631, 607, 634, 656, 668
PHOENIX 632
PHONOLA 607
PROFEX 642, 644
PROTECH 607, 642, 644, 646, 649

QUELLE 631, 632, 607, 642, 645, 653

R-LINE 607
RADIOLA 607
RADIOSHACK 610, 623, 621, 602
RBM 653
RCA 601, 610, 615, 616, 617, 618, 661, 662, 609
REDIFFUSION 632, 642
REX 631, 646
ROADSTAR 641, 644, 646

SABA 631, 636, 642, 651
SAISHO 639, 644, 646
SALORA 631, 632, 642, 643
SAMBERS 649
SAMSUNG 607, 638, 644, 646, 669, 670
SANYO 635, 645, 648, 621, 614
SBR 607, 634
SCHAUB LORENZ 642
SCHNEIDER 607, 641, 647
SEG 642, 646
SEI 632, 640, 649
SELECO 631, 642
SHARP 602, 619, 627, 667
SIAREM 632, 649
SIEMENS 631
SINUDYNE 632, 639, 640, 649
SKANTIC 643
SOLAVOX 631
SONOKO 607, 644
SONOLOR 631, 635
SONTEC 607
SONY 604
SOUNDWAVE 607
STANDARD 641, 644
STERN 631
SUSUMU 641
SYSLINE 607

TANDY 631, 641, 648
TASHIKO 634
TATUNG 607, 648
TEC 642
TELEAVIA 636
TELEFUNKEN 636, 637, 652
TELETECH 644
TENSAI 640, 641
THOMSON 636, 651, 652, 663
THORN 631, 607, 642, 645, 648
TOMASHI 618
TOSHIBA 605, 602, 626, 621, 653
TOWADA 642

ULTRAVOX 632, 642, 649
UNIDEN 671
UNIVERSUM 631, 607, 638, 642, 645, 646, 654

VESTEL 607
VICTOR 613
VOXSON 631

WALTHAM 643
WATSON 607
WATT RADIO 632, 642, 649
WHITE WESTINGHOUSE 607

YOKO 607, 642, 646

ZENITH 603, 620

PIONEER 600, 631, 632, 607, 636, 642, 651

Minimum copying times

The table below shows the minimum HDD to DVD copying time for one hour of video.

Please note that not all discs are compatible with high-speed copying.[1] Check with the disc manufacturer for compatibility.

DVD disc type		Rec mode					
		SEP	SLP	EP	LP	SP	XP
		10 h	8 h	6 h	4 h	2 h	1 h
DVD-R / 1x DVD-RW / 1x	1x	6 mins.	7.5 mins.	10 mins.	15 mins.	30 mins.	60 mins.
DVD-RW / 2x DVD-R DL DVD-RAM / 2x	2x	3 mins.	4 mins.	5 mins.	7.5 mins.	15 mins.	30 mins.
DVD+R / 2.4x DVD+RW / 2.4x DVD+R DL	2.4x	**1*	**1*	**1*	6.3 mins.	12.5 mins.	25 mins.
DVD-RAM / 3x DVD-RAM / 5x	3x	2 mins.	2.5 mins.	3.5 mins.	5 mins.	10 mins.	20 mins.
DVD-R / 4x DVD-RW / 4x DVD+R / 4x DVD+RW / 4x	4x	1.5 mins.**1*	2 mins.**1*	2.5 mins.**1*	4 mins.	7.5 mins.	15 mins.
DVD-R / 8x / 16x DVD+R / 8x / 16x DVD-RW / 6x DVD+RW / 8x	6x	1.25 mins.**1*	1.6 mins.**1*	2.2 mins.**1*	3 mins.	5.5 mins.	11 mins.

Note that all times in the above table are approximate. Also that actual copy speed varies with the part of the disc being recorded.
1 Titles recorded on DVD+R/+RW in* **SEP, **SLP** *or* **EP** *modes cannot be high-speed copied.*

Note

1 Depending on the disc, the copy speed may be reduced (for example, although a 6x disc is used, the copy may be made at 2x speed).

Manual recording modes

The table below shows the approximate recording times for different DVD types in each manual recording mode, as well as the standard recording mode equivalents. For recording time on the HDD, see *Specifications (DVR-LX60D)* on page 162.

Level		Rec. time *1		Resolution *2	
		Single-Layer DVD: DVD-R/-RW DVD+R/+RW DVD-RAM	Dual-Layer DVD: DVD-R DL DVD+R DL	Video mode Off (HDD) VR mode (DVD-R/-RW) DVD-RAM VR mode (DVD-R DL)	Video mode On (HDD) Video mode (DVD-R/-RW) DVD+R/+RW Video mode (DVD-R DL) DVD+R DL
MN 1 *3,4		802 mins.	1440 mins.		
MN 2 *3,4		720 mins.	1292 mins.		
MN 3 *3,4	SEP	600 mins.	1077 mins.	352 x 240 / 352 x 288	352 x 240 / 352 x 288
MN 4 *4	SLP	480 mins.	861 mins.		
MN 5 *4		420 mins.	754 mins.		
MN 6 *4	EP	360 mins.	646 mins.		
MN 7		300 mins.	538 mins.	352 x 480 / 352 x 576	352 x 480 / 352 x 576
MN 8		270 mins.	484 mins.		
MN 9	LP	240 mins.	431 mins.	480 x 480 / 480 x 576	
MN 10		230 mins.	413 mins.		
MN 11		220 mins.	395 mins.		
MN 12		210 mins.	377 mins.	544 x 480 / 544 x 576	
MN 13		200 mins.	359 mins.		
MN 14		190 mins.	341 mins.		
MN 15		180 mins.	323 mins.		
MN 16		170 mins.	305 mins.	720 x 480 / 720 x 576	720 x 480 / 720 x 576
MN 17		160 mins.	287 mins.		
MN 18		150 mins.	269 mins.		
MN 19		140 mins.	251 mins.		
MN 20		130 mins.	233 mins.		
MN 21	SP	120 mins.	215 mins.		
MN 22		110 mins.	197 mins.		
MN 23		105 mins.	188 mins.		
MN 24		100 mins.	179 mins.		
MN 25		95 mins.	170 mins.		
MN 26		90 mins.	161 mins.		
MN 27		85 mins.	153 mins.		
MN 28		80 mins.	144 mins.		
MN 29		75 mins.	135 mins.		
MN 30		70 mins.	126 mins.		
MN 31		65 mins.	117 mins.		
MN 32	XP	61 mins.	111 mins.		
LPCM		61 mins.	111 mins.		
XP+ *5		--- mins.	--- mins.		

*1 *Recording time may be slightly shorter for certain disc types or recording modes.*

*2 *The first figure refers to when the Input Line System is set to 525 System; the second when set to 625 System.*

*3 *Modes* **MN1** *to* **MN3** *not available when using DVD+R/+RW.*

*4 *Titles recorded at* **MN6** *or lower cannot be high-speed copied to DVD+R/+RW.*

*5 **XP+** *mode is available for HDD recordings only. If set for a DVD recording, the DVD will be automatically recorded in* **MN32** *mode.*

- *Levels separated by a bold line show where there is a noticeable change in picture quality.*
- *Audio recording in all manual recording modes is in Dolby Digital 2 ch format, except for LPCM mode, which is in Linear PCM format.*
- See also *Recording* on page 79.

Troubleshooting

Incorrect operation is often mistaken for trouble and malfunction. If you think there is something wrong with this component, please check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after checking the points below, ask your nearest Pioneer authorized service center or your dealer to carry out repair work.

General

Problem	Remedy
The disc is automatically ejected after closing the disc tray	• Check that the disc is not an incompatible format disc (page 44). • Check that the disc is loaded properly (aligned in disc tray and label-side up). • Take out the disc and clean it (page 160). • Check that the disc has a region code compatible with the recorder.
Can't eject a disc	• Turn off the power to this device and press and hold ▲ **OPEN/CLOSE** on the front of the recorder for more than three seconds.
Can't play a disc	• Check that the disc is a compatible format disc (page 44). • Take out the disc and clean it (page 160). • Check that the disc is loaded properly (aligned in disc tray and label-side up). • Press **HDD/DVD** to select the DVD. • There may be condensation in the recorder. Leave the recorder for an hour or so for the condensation to evaporate. • During HDD recording, you can't play discs that are recorded with a Line System different to the current recorder setting. • DVD+R/+RW discs recorded using another recorder with copy-once protected recordings will not play in this recorder.
Can't record a disc	• Check that the disc is not an incompatible format disc (page 44). • Some DVD-RAM discs are not recordable until they have been initialized (page 89). This can take up to an hour.
Remote control does not work	• If you connected this recorder to the receiver subwoofer using the **CONTROL IN** jack, point the remote control at the display unit of the receiver subwoofer to use (page 48). • Set the remote control to the same ID number as the recorder (page 145). (When the batteries run down, the remote mode is automatically reset to **Recorder1**.) • Use the remote within its operating range (page 20). • Replace the batteries (page 21).
No picture	• Check that everything is connected properly (page 48). • Check that the connected TV and/or the AV amp/receiver is set to the correct input. • The recorder may be set to progressive scan with an incompatible TV. Reset to interlace by pressing and holding the front panel ■ (Stop) button then pressing ▲ **OPEN/CLOSE**. • If you are using an indoor antenna that requires power, make sure that *Aerial Power* in the Initial Setup menu is set to **On** or **Auto** (page 138). • If the aerial/antenna is not connected properly, or if it is shorted, the *Aerial Power* setting will revert to **Off** automatically. Check the aerial connection and try making the setting again. • When the HDMI signal is output, no video is output from the **COMPONENT VIDEO OUT**.
All settings are reset	• If the recorder is unplugged (or there is a power failure) while the recorder is on, all the settings will be lost. • Make sure that you switch the recorder into standby before unplugging the power cord.

Problem	Remedy
No sound or sound is distorted	• Make sure that the amp/receiver or TV is set to the correct input and the volume turned up. • There is no sound when the picture is paused, or during scanning or slow motion play. Press ► **PLAY** to resume regular playback. • DTS audio can only be played back if the recorder's digital output is connected to the receiver subwoofer. If connected to your TV, your TV must have a DTS decoder for you to be able to enjoy DTS sound. • Some 96 kHz discs do not output audio through the digital jack. • Check the audio cable connections (page 48). • If the sound is distorted, try cleaning the cable plugs.
Cannot switch a bilingual programme	• During real-time copying it is not possible to switch audio channels. The main and sub channels are both output.
The picture from the external input is distorted	• If the video signal from the external component is copy-protected, you cannot connect via this recorder. Connect the component directly to your TV.
The picture is distorted	• Change the Input Line System setting (page 146). (You can also change it by pressing the ■ (Stop) button and **INPUT SELECT** on the front panel simultaneously with the recorder stopped.)
Screen is stretched vertically or horizontally	• Make sure that the **TV Screen Size** setting (page 143) is correct for the kind of TV you have (see also page 159). • If you have a widescreen TV, check its aspect ratio settings. • This recorder's input switches into wide mode automatically according to the input signal. When the unit connected is not compatible with VIDEO ID-1 (widescreen signalling), set the connected component to output 4:3 aspect ratio (standard) video.
Audio/subtitle language cannot be changed	• Note that audio and subtitle languages cannot be changed during the recording of a digital broadcast. • You can only use the audio track and subtitles for the language that were selected at the time of recording a digital broadcast. The audio track and subtitles cannot be changed to other languages.
Can't play a disc recorded using this recorder on another player	• If the disc was recorded in DVD-R/-RW (Video mode) or DVD+R, make sure that it's finalized (page 88). • Some players will not play recordable DVD discs, even when recorded in DVD-R/-RW (Video mode) or DVD+R and finalized. • If the disc was recorded in VR mode, the other player must be specifically RW compatible in order to play it (page 43). • Discs recorded with copy-once material cannot be played on non-CPRM compatible players (page 80). • DVD+RW discs containing only a small amount of recorded material may not play on other players. Finalize the disc and try again.
During playback the picture is dark or distorted	• When a copy-protected disc is played via a VCR, the picture will not display correctly. Connect the recorder directly to your TV.
Recorded contents are not clear or artefacts appear in areas of flat colour (due to MPEG compression; also known as *block noise*)	• Change the recording mode to **XP**/**SP**.

Problem	Remedy
Can't record or does not record successfully	• Check that there is some remaining blank space on the DVD/HDD. • For a DVD-R/-RW (Video mode) or DVD+R, check that the disc isn't already finalized. • Check the limits on the number of titles and chapters on a disc: – HDD: 999 titles – VR mode: 99 titles, 999 chapters per disc – Video mode disc: 99 titles per disc, 99 chapters per title – DVD+R/+RW: 49 titles per disc, 99 chapters per title (max 254 chapters per disc) • Check that the source you are trying to record is not copy protected. • For a VR formatted disc, check that the disc isn't locked (page 132). • Check that you are recording with the same TV system (PAL, NTSC, etc.) as the disc has already been recorded in. All recordings on a disc must be in the same TV system. When recording to the HDD, it is also necessary to set the Input Line System setting to match what you want to record (page 146). • The power may have failed during recording.
Timer programme doesn't record successfully	• When setting the recording channel, make sure you set the recorder's built-in TV tuner, not the TV's built-in tuner. • When recording to a DVD-R/-RW (Video mode) or DVD+R/+RW, programmes that are copy-once protected cannot be recorded. Use a VR mode formatted disc for copy-once material (page 80). • Two timer programmes may have overlapped, in which case only the earlier one will record completely. • The power may have failed during recording.
After briefly unplugging or after a power failure the front panel display shows '--:--'	• A backup battery inside the recorder keeps the clock and other settings from being reset when there is no power to the recorder. After unplugging or a power failure, the battery keeps all settings for a period of several minutes. Reset the clock and other recorder settings to use the recorder again. • To have the battery replaced, please ask your nearest Pioneer authorized service center or your dealer to carry out repairs.
Front panel display shows 'LOCKED' when a button is pressed	• The Child Lock is on; turn off in order to use the recorder (page 87).
Can't use One Touch Copy (HDD to DVD)	• Make sure that there is a recordable DVD-R/-RW loaded with some free space for recording and fewer than 99 titles already on the disc. Also make sure that for a DVD-R/-RW (Video mode) or a DVD+R, the disc isn't finalized. • Make sure there is a recordable DVD+R/+RW loaded with some free space for recording and fewer than 49 titles already on the disc. • If you delete a title from a DVD+R/+RW disc, the number of remaining recordable titles may not decrease. • Further recording is not possible on a finalized DVD+R. Check that there isn't a disc menu on the disc you're trying to use. • If the title currently playing contains material that is copy-once protected, One Touch Copy will not work. • If the currently playing HDD content was recorded in **XP+** mode, the One Touch Copy feature can't be used. • One Touch Copy can't be used for titles over eight hours long when copying to DVD+R/+RW (though you can use a DVD+R DL). • One Touch Copy can't be used for **MN1** to **MN6**, **SEP**, **SLP** or **EP** titles when copying to DVD+R/+RW. • One Touch Copy doesn't work if the recorder is already recording to DVD.
Can't use One Touch Copy (DVD to HDD)	• Make sure that there is space available on the HDD and that there are fewer than 999 titles on the HDD. • One Touch Copy doesn't work if the recorder is already recording to the HDD.

Problem	Remedy
The device connected to the USB port is not recognized	• Check that the device is compatible with this recorder (page 55). • Use a USB cable less than 5 m in length. • Check that the USB cable is inserted fully. • Check that the USB device is powered on. • Try switching this recorder into standby mode and then back on. • Try using the **Restart USB Device** option from the Initial Setup menu (page 145). • If several USB devices (camera, USB memory, card reader, etc.) are connected at the same time, it's possible that only the first device connected to this recorder will be recognized.
File names are not displayed properly.	• Files names that do not conform to the ISO8859-1 standard may not display correctly on this unit.

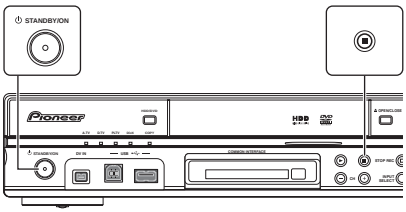
HDMI

Problem	Remedy
The connected HDMI or DVI device does not display any picture (and the front panel HDMI indicator does not light)	• Try disconnecting then reconnecting the HDMI cable (while the power of both components is on). • Try switching the power of the HDMI/DVI device off then back on. • Try switching off the HDMI/DVI device and this recorder. Next, switch on the HDMI/DVI device and leave it for around 30 seconds, then switch on this recorder. • When you connect an HDMI-compatible device make sure of the following: – The connected device's video input is set correctly for this recorder. – The cable you're using is fully HDMI-compliant. Using a non-standard cable may result in no picture being output. – Don't use several HDMI cables connected together. Use a single cable to connect devices together. • When you connect a DVI-compatible device make sure of the following: – The connected device's video input is set correctly for this recorder. – The DVI terminal on the connected device is HDCP-compatible. – The connected device is compatible with NTSC (720 x 480i/p, 1280 x 720p, 1920 x 1080i/p) and PAL (720 x 576i/p, 1280 x 720p, 1920 x 1080i/p) video input. • If the recorder's internal HDD is damaged or broken, there will be no HDMI output. • Not all HDCP-compatible DVI devices will work with this recorder.
No video from the HDMI output	• If you choose a setting that is incompatible with your TV you may not be able to see any picture at all. In this case, press ▲ **OPEN/CLOSE** while holding down the ■(Stop) button on the front panel to switch the setting (this also switches *Component Video Out* on page 139 to the default setting).
There's no sound from the connected HDMI or DVI device	• There is no sound when using a DVI terminal. • Some HDMI-compatible devices do not output sound (check with the manual that came with the connected device).

If the unit does not operate normally due to external effects such as static electricity, disconnect the power plug from the outlet and insert again to return to normal operating conditions.

If the picture freezes and the front panel and remote control buttons stop working

- Press ■(Stop) then try restarting playback.
- Press the front panel ⏻ **STANDBY/ON** button to switch the power off, then switch back on and restart playback. If the power fails to switch off, press and hold ⏻ **STANDBY/ON** for five seconds until the power switches off.



On-screen displays

The table below shows a list of error messages that you may encounter when using the recorder and an explanation of their meaning.

Message	Explanation/Action
• Initializing disc. Please wait a moment.	When you load a blank DVD-RW or DVD+RW disc, the recorder automatically initializes it.
• Incompatible region number.	The disc loaded has an incompatible region number for the recorder and so will not play.
• Cannot record any more titles. **• No more space for file management data.**	The disc control data limit has been reached, or the maximum number of chapters and/or titles has been reached. Erase titles/chapters or combine chapters.
• This disc cannot be recorded. Undo the finalization.	The disc was finalized on a non-Pioneer DVD recorder. Undo the finalization in order to recording/editing.
• Cannot play this disc. **• This disc cannot be recorded.** **• Cannot read the CPRM information.** **• Could not record the information to the disc.** **• Cannot edit.** **• Could not initialize disc.** **• Could not complete finalization successfully.** **• Could not undo finalization successfully.** **• Could not successfully unlock the disc.**	The disc may be dirty or damaged. Take out the disc, clean it and retry. If the error persists, use a new disc. If the error appears even with a new disc, please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.
• Incompatible or unreadable disc.	The disc loaded is a playback-only disc type. This display may also appear if the disc is dirty or damaged.
• Cannot record to a disc that is not CPRM compatible. **• Cannot record this content using Video mode recording.** **• This video cannot be recorded to DVD+R/+RW.**	The video source is copy-once protected. Use a VR mode DVD-R/-RW disc with CPRM for recording.
• This content is copy protected.	The video source is copy-protected and cannot be recorded.
• Incorrect CPRM information.	The recorder could not read the CPRM information. The recorder may be damaged — please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.
• Repairing disc. **• Repairing the HDD.**	During recording, the power was cut. This display appears when the power is restored.
• Could not repair the disc.	The recorder was unable to repair the disc after a power cut. The contents of the recording will be lost.
• Overheating has stopped operation. Press DISPLAY to clear message.	The internal temperature of the recorder has exceeded the operating limit. If this message reappears, please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.
• HDD optimization is recommended. This can be done using Disc Setup.	The HDD should be optimized (basically, HDD housekeeping) to maintain playback and recording performance.
• Please perform HDD optimization. This can be done using Disc Setup.	The HDD is in more urgent need of optimization in order to maintain performance.

Message	Explanation/Action
• The HDD has not been sufficiently optimized. Please optimize again.	If this message appears repeatedly after optimizing the HDD it is likely that there is not enough free space on the HDD for optimization to complete properly. Please erase some titles from the HDD and optimize again.
• An error occurred. Please consult the service center. Note that contents on the HDD may be erased when servicing this unit.	This message is displayed when information from the HDD cannot be read. The HDD may be damaged or broken. Please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.
• The Hard Disk Drive info is incorrect. Use the Disc Setup menu to reinitialize.	As the HDD info cannot be properly read, no new recordings can be made. Reinitializing the HDD (page 133) may result in your being able to make recording again. Note that reinitializing the HDD will erase all recorded contents, including protected files.
• This signal's TV system is different from the recorder's setting.	The TV system (PAL, NTSC, etc.) of the current channel is different from the TV system settings of this recorder.
• Recording failed due to a TV system mismatch. Press DISPLAY to clear message.	The timer recording failed because the TV system of the channel set for recording was different from the setting of the recorder.
• Playback has stopped because the TV system is different than the recording.	During recording or timer recording standby, the TV System (PAL, NTSC, etc.) of the playback video changed, causing playback to stop automatically.
• You are not allowed to watch this Conditional Access Programme.	A CA module or smart card (obtained from your service provider) is required to watch the selected programme. Insert the supplied module or card into the Common Interface card slot on the front panel of the recorder (page 17).
• There is no DV input or the input signal is unrecordable.	No signal was detected at the **DV IN** jack. This may appear if a blank section of DV tape is playing in the connected camcorder.
• No DV camcorder connected.	The camcorder is not connected properly, or the camcorder is switched off.
• You cannot connect more than one DV camcorder at a time.	This recorder's DV jack supports connection to just one camcorder.
• Cannot operate the DV camcorder.	This recorder cannot operate the DV camcorder. Try switching off the camcorder then turn it back on again.
• Could not operate the DV camcorder.	This recorder was not able to operate the DV camcorder.
• The DV camcorder is not set for playback. Please select playback mode on the DV camcorder.	The camcorder is in camera mode. Switch it to playback mode.
• The printer is not ready or is not connected. Please check the printer.	This message is displayed when communication could not be established with the printer. See the *Troubleshooting* section if you do not know the cause.
• Printing has been cancelled because ...	This message is displayed when there is a printer error during printing. After checking the printer for the cause of the error, either reconnect the printer and start the printing job again, or select "Yes" to resume printing (select "No" to cancel the print job). See also the operating instructions that came with your printer for possible causes of print errors.

Front-panel displays

The table below shows a list of error messages that you may encounter when using the recorder and an explanation of their meaning.

Message	Explanation/Action
• **E01**	The HDD may be damaged or broken. Please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.
• **E02**	As the HDD info cannot be properly read, no new recordings can be made. Reinitializing the HDD (page 133) may result in your being able to make recording again. Note that reinitializing the HDD will erase all recorded contents, including protected files.

Language code list

Language (Language code letter), **Language code**

Japanese (ja), **1001**
English (en), **0514**
French (fr), **0618**
German (de), **0405**
Italian (it), **0920**
Spanish (es), **0519**
Chinese (zh), **2608**
Dutch (nl), **1412**
Portuguese (pt), **1620**
Swedish (sv), **1922**
Russian (ru), **1821**
Greek (el), **0512**
Polish (pl), **1612**
Czech (cs), **0319**
Norwegian (no), **1415**
Afar (aa), **0101**
Abkhazian (ab), **0102**
Afrikaans (af), **0106**
Amharic (am), **0113**
Arabic (ar), **0118**
Assamese (as), **0119**
Aymara (ay), **0125**
Azerbaijani (az), **0126**
Bashkir (ba), **0201**
Byelorussian (be), **0205**
Bulgarian (bg), **0207**
Bihari (bh), **0208**
Bislama (bi), **0209**
Bengali (bn), **0214**
Tibetan (bo), **0215**
Breton (br), **0218**
Catalan (ca), **0301**
Corsican (co), **0315**
Welsh (cy), **0325**
Danish (da), **0401**
Bhutani (dz), **0426**
Esperanto (eo), **0515**
Estonian (et), **0520**
Basque (eu), **0521**
Persian (fa), **0601**
Finnish (fi), **0609**
Fiji (fj), **0610**
Faroese (fo), **0615**
Frisian (fy), **0625**
Irish (ga), **0701**
Scots-Gaelic (gd), **0704**
Galician (gl), **0712**
Guarani (gn), **0714**
Gujarati (gu), **0721**
Hausa (ha), **0801**
Hindi (hi), **0809**
Croatian (hr), **0818**
Hungarian (hu), **0821**
Armenian (hy), **0825**
Interlingua (ia), **0901**
Interlingue (ie), **0905**
Inupiak (ik), **0911**
Indonesian (in), **0914**
Icelandic (is), **0919**
Hebrew (iw), **0923**
Yiddish (ji), **1009**
Javanese (jw), **1023**
Georgian (ka), **1101**
Kazakh (kk), **1111**
Greenlandic (kl), **1112**
Cambodian (km), **1113**
Kannada (kn), **1114**
Korean (ko), **1115**
Kashmiri (ks), **1119**
Kurdish (ku), **1121**
Kirghiz (ky), **1125**
Latin (la), **1201**
Lingala (ln), **1214**
Laotian (lo), **1215**
Lithuanian (lt), **1220**
Latvian (lv), **1222**
Malagasy (mg), **1307**
Maori (mi), **1309**
Macedonian (mk), **1311**
Malayalam (ml), **1312**
Mongolian (mn), **1314**
Moldavian (mo), **1315**
Marathi (mr), **1318**
Malay (ms), **1319**
Maltese (mt), **1320**
Burmese (my), **1325**
Nauru (na), **1401**
Nepali (ne), **1405**
Occitan (oc), **1503**
Oromo (om), **1513**
Oriya (or), **1518**
Panjabi (pa), **1601**
Pashto, Pushto (ps), **1619**
Quechua (qu), **1721**
Rhaeto-Romance (rm), **1813**
Kirundi (rn), **1814**
Romanian (ro), **1815**
Kinyarwanda (rw), **1823**
Sanskrit (sa), **1901**
Sindhi (sd), **1904**
Sangho (sg), **1907**
Serbo-Croatian (sh), **1908**
Sinhalese (si), **1909**
Slovak (sk), **1911**
Slovenian (sl), **1912**
Samoan (sm), **1913**
Shona (sn), **1914**
Somali (so), **1915**
Albanian (sq), **1917**
Serbian (sr), **1918**
Siswati (ss), **1919**
Sesotho (st), **1920**
Sundanese (su), **1921**
Swahili (sw), **1923**
Tamil (ta), **2001**
Telugu (te), **2005**
Tajik (tg), **2007**
Thai (th), **2008**
Tigrinya (ti), **2009**
Turkmen (tk), **2011**
Tagalog (tl), **2012**
Setswana (tn), **2014**
Tonga (to), **2015**
Turkish (tr), **2018**
Tsonga (ts), **2019**
Tatar (tt), **2020**
Twi (tw), **2023**
Ukrainian (uk), **2111**
Urdu (ur), **2118**
Uzbek (uz), **2126**
Vietnamese (vi), **2209**
Volapük (vo), **2215**
Wolof (wo), **2315**
Xhosa (xh), **2408**
Yoruba (yo), **2515**
Zulu (zu), **2621**

Country/Area code list

Country/Area, **Country/Area code**, **Code letter**

Argentina, **0118**, **ar**
Australia, **0121**, **au**
Austria, **0120**, **at**
Belgium, **0205**, **be**
Brazil, **0218**, **br**
Canada, **0301**, **ca**
Chile, **0312**, **cl**
China, **0314**, **cn**
Denmark, **0411**, **dk**
Finland, **0609**, **fi**
France, **0618**, **fr**
Germany, **0405**, **de**
Hong Kong, **0811**, **hk**
India, **0914**, **in**
Indonesia, **0904**, **id**
Italy, **0920**, **it**
Japan, **1016**, **jp**
Korea, Republic of, **1118**, **kr**
Malaysia, **1325**, **my**
Mexico, **1324**, **mx**
Netherlands, **1412**, **nl**
New Zealand, **1426**, **nz**
Norway, **1415**, **no**
Pakistan, **1611**, **pk**
Philippines, **1608**, **ph**
Portugal, **1620**, **pt**
Russian Federation, **1821**, **ru**
Singapore, **1907**, **sg**
Spain, **0519**, **es**
Sweden, **1905**, **se**
Switzerland, **0308**, **ch**
Taiwan, **2023**, **tw**
Thailand, **2008**, **th**
United Kingdom, **0702**, **gb**
USA, **2119**, **us**

Screen sizes and disc formats

When viewing on a standard TV or monitor

Screen format of disc	Setting	Appearance
16:9 	**4:3 (Letter Box)** 	The programme is shown in widescreen with black bars at the top and bottom of the screen.
	4:3 (Pan & Scan) 	The sides of the programme are cropped so that the picture fills the whole screen.
4:3 	**4:3 (Letter Box)** **4:3 (Pan & Scan)** 	The programme is presented correctly on either setting.

When viewing on a widescreen TV or monitor

Screen format of disc	Setting	Appearance
16:9 	**16:9** 	The programme is presented in widescreen.
4:3 	**16:9**  	Your TV will determine how the picture is presented — check the manual that came with the TV for details.

Handling discs

When holding discs of any type, take care not to leave fingerprints, dirt or scratches on the disc surface. Hold the disc by its edge or by the center hole and edge.

Damaged or dirty discs can affect playback and recording performance. Take care also not to scratch the label side of the disc. Although not as fragile as the recorded side, scratches can still result in a disc becoming unusable.

Should a disc become marked with fingerprints, dust, etc., clean using a soft, dry cloth, wiping the disc lightly from the center to the outside edge. Do not wipe with a circular motion.



If necessary, use a cloth soaked in alcohol, or a commercially available CD/DVD cleaning kit to clean a disc more thoroughly. Never use benzine, thinner or other cleaning agents, including products designed for cleaning vinyl records.

Storing discs

Although CDs and DVD discs are more durable than vinyl records, you should still take care to handle and store discs correctly. When you're not using a disc, return it to its case and store upright. Avoid leaving discs in excessively cold, humid, or hot environments (including under direct sunlight).

Don't glue paper or put stickers onto the disc, or use a pencil, ball-point pen or other sharp-tipped writing instrument. These could all damage the disc.



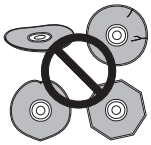
For more detailed care information see the instructions that come with discs.

Do not load more than one disc into the recorder.

Damaged discs

Discs spin at high speed inside the recorder. If you can see that a disc is cracked, chipped, warped, or otherwise damaged, don't risk using it; you could end up damaging the recorder.

This recorder is designed for use with conventional, fully circular discs only. Use of shaped discs is not recommended for this product. Pioneer disclaims all liability arising in connection with the use of shaped discs.



Cleaning the pickup lens

The HDD/DVD recorder's lens should not become dirty in normal use, but if for some reason it should malfunction due to dust or dirt, consult your nearest Pioneer-authorized service center. Although lens cleaners are commercially available, we do not recommend using them since some may damage the lens.

Condensation

Condensation may form inside the recorder if it is brought into a warm room from outside, or if the temperature of the room rises quickly. Although the condensation won't damage the recorder, it may temporarily impair its performance. For this reason you should leave it to adjust to the warmer temperature for about an hour before switching on and using.

Hints on installation

We want you to enjoy using this recorder for years to come, so please bear in mind the following points when choosing a suitable location for it:

Do...

✓ Use in a well-ventilated room.

✓ Place on a solid, flat, level surface, such as a table, shelf or stereo rack.

Don't...

× Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.

× Place on a window sill or other place where the recorder will be exposed to direct sunlight.

× Use in a dusty or damp environment or in a room where it will be exposed to excessive cigarette smoke.

× Place directly on top of an amplifier, or other component in your stereo system that becomes hot in use.

× Use near a television or monitor as you may experience interference — especially if the television uses an indoor antenna.

× Use in a kitchen or other room where the recorder may be exposed to smoke or steam.

× Use on a thick rug or carpet, or cover with cloth — this may prevent proper cooling of the unit.

× Place on an unstable surface, or one that is not large enough to support all four of the unit's feet.

Moving the recorder

If you need to move the recorder, first remove the disc, if loaded, and close the disc tray. Next, press ⏻ **STANDBY/ON** to switch the power to standby, checking that the **POWER OFF** indication in the display goes off. Wait at least two minutes. Lastly, disconnect the power cord. Never lift or move the recorder during playback or recording — discs rotate at a high speed and may be damaged.

Resetting the recorder

If you need to, you can reset the recorder to all its factory settings.

1 Make sure that the recorder is on.

2 Using the front panel controls, press and hold ■ (Stop) and press ⏻ STANDBY/ON.

The recorder turns off with all settings reset.

Specifications (DVR-LX60D)

General

Power requirements 220 V to 240 V, 50 Hz/60 Hz
Power consumption 58 W
Power consumption in standby mode 0.69 W
(Front panel display: off)
Weight 4.8 kg
Dimensions 420 mm (W) x 77 mm (H) x 288 mm (D)
Operating temperature +5 °C to +35 °C
Operating humidity 5 % to 85 % (no condensation)
TV system NTSC (external input only)/PAL/SECAM

Readable discs
DVD-Video, DVD-RW, DVD-R, DVD+R, DVD+RW, DVD-RAM, Video CD, Super VCD, CD, CD-R/-RW (WMA, MP3, JPEG, CD-DA, DivX)

Recording discs and formats
DVD-R/-RW: VR mode and Video mode
DVD+R/+RW: +VR mode
DVD-RAM: VR mode
DVD-R DL: VR mode and Video mode
DVD+R DL: +VR mode

Video recording format
Sampling frequency 13.5 MHz
Compression format MPEG

Audio recording format
Sampling frequency 48 kHz
Compression format Dolby Digital or Linear PCM
(uncompressed)

Recording time
HDD (250 GB)
XP+ Approx. 36 h
Fine (XP) Approx. 53 h
Standard Play (SP) Approx. 106 h
Long Play (LP) Approx. 212 h
Extended Play (EP) Approx. 319 h
Super Long Play (SLP) Approx. 425 h
Super Extended Play (SEP) Approx. 532 h
Manual Mode (MN) Approx. 36 h to 711 h

DVD-R/-RW, DVD+R/+RW, DVD-RAM
Fine (XP) Approx. 1 h
Standard Play (SP) Approx. 2 h
Long Play (LP) Approx. 4 h
Extended Play (EP) Approx. 6 h
Super Long Play (SLP) Approx. 8 h
Super Extended Play (SEP) Approx. 10 h
(DVD-R/-RW, DVD-RAM only)
Manual Mode (MN)
DVD-R/-RW/-RAM Approx. 1 h to 13 h
DVD+R/+RW Approx. 1 h to 8 h

DVD-R DL/DVD+R DL
Fine (XP) Approx. 1 h 51 m
Standard Play (SP) Approx. 3 h 35 m
Long Play (LP) Approx. 7 h 11 m
Extended Play (EP) Approx. 10 h 46 m
Super Long Play (SLP) Approx. 14 h 21 m
Super Extended Play (SEP) Approx. 17 h 57 m
(DVD-R DL only)
Manual Mode (MN)
DVD-R DL Approx. 1 h 51 m to 24 h
DVD+R DL Approx. 1 h 51 m to 14 h 21 m

Timer

Programmes 1 month/32 programmes
Clock Quartz lock (24-hour digital display)

Tuner (analog)

Receivable channels

	SECAM B/G PAL B/G		PAL I	
	Frequency	Channel	Frequency	Channel
VHF (low)	47 MHz to 89 MHz	E2 to E4 X to Z	44 MHz to 89 MHz	A to C X to Z
VHF (high)	104 MHz to 300 MHz	E5 to E12 S1 to S20 M1 to M10 U1 to U10	104 MHz to 300 MHz	D to J 11, 13 S1 to S20
Hyper	302 MHz to 470 MHz	S21 to S41	302 MHz to 470 MHz	S21 to S41
UHF	470 MHz to 862 MHz	E21 to E69	470 MHz to 862 MHz	E21 to E69

	SECAM L		SECAM D/K PAL D/K	
	Frequency	Channel	Frequency	Channel
VHF (low)	49 MHz to 65 MHz	FB, FC1, FC	49 MHz to 94 MHz	R1 to R5
VHF (high)	104 MHz to 300 MHz	F1 to F6 B to Q	104 MHz to 300 MHz	R6 to R12 S1 to S20
Hyper	300 MHz to 470 MHz	S21 to S41	302 MHz to 470 MHz	S21 to S41
UHF	470 MHz to 862 MHz	21 to 69	470 MHz to 862 MHz	E21 to E69

STEREO
B/G - A2
I - NICAM
L - NICAM
B/G - NICAM
D/K - NICAM

Tuner (digital)

Receiving system DVB-T (2 K/8 K COFDM)
Tuner VHF/UHF VHF band III (174 MHz to 230 MHz)
UHF band IV, V (470 MHz to 862 MHz)
Auto Channel Preset 999 ch, Auto Preset, Auto Label, Auto Sort
Audio Stereo MPEG layer I/II
Audio Decoder
. Sampling frequencies: 32 kHz, 44.1 kHz, 48 kHz

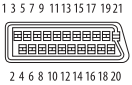
This product's digital tuner has been confirmed for use in the following countries: Belgium, France, Germany, Italy, Spain, Denmark, Finland, Netherlands, Sweden, Switzerland, UK.

Input/Output

Antenna
.....75 Ω IEC 169-2 connector for VHF/UHF in/out (analog)
..... 75 Ω IEC 169-2 connector for VHF/UHF in/out (digital)
Video input AV2 (Input 1), Input 2 (front), Input 3 (rear)
Input level 1 Vp-p (75 Ω)
Jacks AV connector (Input 1), RCA jack (Input 2, Input 3)
Video output AV1, Output
Output level 1 Vp-p (75 Ω)
Jacks AV connector (AV1), RCA jack (Output)
S-Video input .. AV2 (Input 1), Input 2 (front), Input 3 (rear)
Y (luminance) - Input level 1 Vp-p (75 Ω)
C (colour) - Input level 300 mVp-p (75 Ω)
Jacks AV connector (Input 1), 4 pin mini DIN (Input 2, Input 3)
S-Video output..... AV1, Output
Y (luminance) - Output level..... 1 Vp-p (75 Ω)
C (colour) - Output level 300 mVp-p (75 Ω)
Jacks AV connector (AV1), 4 pin mini DIN (Output)
Component video output
Output level Y: 1.0 Vp-p (75 Ω)
P_B, P_R: 0.7 Vp-p (75 Ω)
Jacks RCA jacks
RGB input AV2 (Input 1)
Input level 0.7 Vp-p (75 Ω)
Jacks AV connector (Input 1)
RGB output AV1
Output level 0.7 Vp-p (75 Ω)
Jacks AV connector (AV1)
Audio input
..... AV2 (Input 1), Input 2 (front), Input 3 (rear) L/R
During audio input 2 V rms (Input impedance: more than 22 kΩ)
Jacks AV connector (Input 1), RCA jacks (Input 2)
Audio output AV1, Output
During audio output..... 2 V rms (Output impedance: less than 1.5 kΩ)
Jacks AV connector (AV1), RCA jacks (Output)
Control input Mini jack
Digital audio output Coaxial
G-LINK™ Mini jack
Common Interface CA module
DV input..... 4 pin (front) (i.LINK/IEEE 1394 standard)
USB Type A (front), Type B (front)
HDMI 19 pin

AV Connectors (21-pin connector assignment)

AV connector input/output.....21-pin connector
This connector provides the video and audio signals for connection to a compatible colour TV or monitor.



PIN no.	AV1 (RGB)-TV / AV2 (INPUT 1/DECODER)
1	Audio 2/R out / Audio 2/R out
2	– / Audio 2/R in
11	G out / G in
3	Audio 1/L out / Audio 1/L out
6	– / Audio 1/L in
15	R or C out / R or C in
4	GND
17	GND
7	B out / B in
19	Video out or Y out / Video out
20	– / Video in or Y in
8	Status
21	GND

Supplied accessories

Remote control 1
AA/R6 dry cell batteries.....2
Audio/Video cable (red/white/yellow) 1
G-LINK™ cable.....1
RF antenna cable.....2
Power cable 1
Warranty card 1
Operating instructions 1

Note: The specifications and design of this product are subject to change without notice, due to improvement.

This product includes FontAvenue® fonts licenced by NEC Corporation. FontAvenue is a registered trademark of NEC Corporation.

Microsoft product screen shots reprinted with permission from Microsoft Corporation.

http://www.pioneer.co.uk
http://www.pioneer.eu

Published by Pioneer Corporation.
Copyright © 2007 Pioneer Corporation.
All rights reserved.

PIONEER CORPORATION
4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC.
P.O. BOX 1540, Long Beach, California 90801-1540, U.S.A. TEL: (800) 421-1404
PIONEER ELECTRONICS OF CANADA, INC.
300 Allstate Parkway, Markham, Ontario L3R 0P2, Canada TEL: 1-877-283-5901, 905-479-4411
PIONEER EUROPE NV
Haven 1087, Keetberglaan 1, B-9120 Melsele, Belgium TEL: 03/570.05.11
PIONEER ELECTRONICS ASIACENTRE PTE. LTD.
253 Alexandra Road, #04-01, Singapore 159936 TEL: 65-6472-7555
PIONEER ELECTRONICS AUSTRALIA PTY. LTD.
178-184 Boundary Road, Braeside, Victoria 3195, Australia, TEL: (03) 9586-6300
PIONEER ELECTRONICS DE MEXICO S.A. DE C.V.
Blvd.Manuel Avila Camacho 138 10 piso Col.Lomas de Chapultepec, Mexico,D.F. 11000 TEL: 55-9178-4270

K002_B_En

<ARB7383-A>